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ORIGINAL COMMUNICATIONS.

A STATEMENT

OF THE PRESENT CONDITION OF A CASE OF RESECTION OF THE KNEE JOINT, PERFORMED IN FEBRUARY, 1859.

BY J. W. FREER, M. D.,

Professor of Surgical and Microscopical Anatomy in Rush Medical College.

The July number, 1859, of the *Chicago Medical Journal*, contains the report of the above case; but for the information of those who may not be in possession of the number referred to, I will recapitulate briefly the important points.

The patient was a female, aged 30 years, of healthy and vigorous constitution. The appearances of the diseased limb were reported as follows: Joint enormously swollen, partly from pressure of fluid within the articular cavity, and partly from œdema. Spontaneous dislocation of the leg outward, with semi-flexion and anchylosis; in front and below, a de-

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pressed cicatrix, marking the situation of a former fistulous opening; the skin of natural color and temperature.

The operation was performed on the 10th of February, 1859, in the following manner: The patient being placed fully under the influence of chloroform, and in proper position, an incision was made in outline like the letter U, the inferior portion corresponding with the tibia, an inch below the lesser tuberosity, the open sides extending upward on either border of the joint, to the distance of four inches above the articulation. The flap being dissected up, the ligamentum patellæ and lateral ligaments severed, the extremities of the bones were readily exposed by forcible flexion. Having removed the patella, excision was easily completed with the amputating saw. Two inches in length of the femur and one inch of the tibia were removed.

The morbid anatomy of the joint showed an entire destruction of the articular cartilages, and portions of the bones were deeply excavated.

The treatment was that of confining the limb in a straight carved splint and foot board, with a long side splint firmly attached to the pelvis and foot. No medical treatment was required, not even anodynes, as the patient did not suffer pain enough to prevent sleep any time during her confinement in bed.

Four months after the operation, the wound had healed and the purulent discharge ceased, while union had taken place of sufficient firmness to sustain the weight of the limb without splints.

Eight months after the operation, she was able to go about with the aid of one crutch, union being sufficiently firm to sustain the weight of the body in the upright position.

At the present time—about two years since the operation—she is capable of walking without difficulty, and has thrown away crutch and cane. The limb is shortened about two and one half inches, which is compensated by means of a high-heeled shoe.

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The accompanying engraving gives a very good representation of the present appearance of the limb:

I will abstain from making any remarks in regard to the propriety or impropriety of such operations, merely giving the result of the case. The subject, of late, has been sufficiently discussed by those whose experience and observation in regard to this special subject, must enable them to pronounce with some degree of certainty as to whether it is an operation fit to be performed or not. From my own investigations and observations, I am led to believe that, as far as safety to the patient is concerned, it is attended with no more, if as much, danger as in amputations above the knee. Especially where the entire constituents of the joint are removed, thus reducing the operation to the simplicity of an ordinary amputation. Where portions of synovial and cartilaginous structure are left remaining, the cure is not only protracted, but endangered, from the well-known fact that those textures have but little tendency to recover from inflammatory action, and the destructive process proceeds with characteristic tardiness.

SUGGESTIONS ON THE TENDENCY TO VACUUM

IN THE CEREBRO-SPINAL CAVITY WHICH EXISTS IN CERTAIN SPASMODIC DISEASES.

BY DANIEL BRAINARD, M. D.,
Professor of Surgery in Rush Medical College.

I. Since the discovery of the "cerebro-spinal" fluid, by Magendie, and the description of the veins of the head and spinal column by Breschet, the opinion has been gaining ground, that these vessels and this fluid have for their object in part the regulation of the degree of pressure exerted upon the nervous centres and obviating the effects of sudden and even of gradual changes.

Active as the circulation of the brain and spinal cord are known to be, it is impossible to attribute the extensive nervous plexuses which exist around and within the cranium and spinal column, to the wants of the circulation alone.

It is not my intention to describe these veins, which has been done so completely by the recent anatomists whose works are in the hands of students, particularly by Cruveillhier, Quain and Wilson; but there are some points to which I desire to call attention, as bearing especially on the objects of this essay.

Of these, the first is that the cerebral and spinal veins constitute a separate system which, in its independence, may be compared to the portal system. Thus, the veins of the spine, from the extremity of the sacrum to the top of the dorsal division, (but most perfectly in this latter,) are collected into the venæ azygos, which, instead of passing into the ascending cava, empties into the descending cava, through the medium of the venæ innominatæ and the subclavian vein, where are gathered, all the principal venous trunks emanating from the interior of the cerebro-spinal cavity.

In the second place, it is important to remember that the venæ azygos are without valves,* and that the circulation

* Cruveillhier, Descriptive Anatomy.

through them is so free, that the ligation of all the jugular veins does not prevent the circulation of the brain from being carried on, as Cruveillhier has proved by experiment.*

It should also be borne in mind in all studies on the circulation, that the coats of the spinal venous plexuses are not only very thin, but that "the muscular element is wanting in most of the veins of the brain and pia mater."

These facts are cited in order to facilitate the apprehension of the manner and degree in which the respiratory movements act upon the brain, and influence its movements, its states of fullness and of vacuity.

II. Representing the prevailing opinions on the subject of pressure on the brain, I quote from the following works of authority:

"Magendie's experiments show that the brain and spinal cord are surrounded by fluid, the pressure of which probably antagonizes that which must be exerted through the blood vessels." "This fluid is a valuable regulator of vascular fullness within the cranium, and a protection of the brain against too much pressure from within." †

"The amount of this cerebro-spinal fluid seems to average about two ounces; but in case of atrophy of the brain, as much as twelve ounces of fluid may sometimes be obtained from the cranio-spinal cavity." "It evidently serves as an equalizer of the amount of pressure within the cranial cavity, admitting the distension or contraction of the vessels to take place within certain limits without any considerable change in the compression to which the nervous matter is subjected." ‡

It may be added, that while the above quotations express the prevailing opinions of physiologists, the experiments of

* Kolliker, Manual of Microscop. Anat. p. 689.

† Todd and Bowman, Physiological Anatomy and Physiology of Man, Am. Ed. p. 268.

‡ Carpenter, Human Physiology, Am. Ed. p. 580.

Longet and Cruveillhier seem to show that the importance of this fluid to life has been over-estimated by Magendie.‡

The discussion in regard to the brain being subject to atmospheric pressure appears to be settled in the affirmative. As the veins situated on the exterior of the cavity communicate freely with those of the interior, it follows that through their medium the pressure of the atmosphere must be exerted to some degree on the brain, unless it be obviated in some manner. The only way in which this can be accomplished, according to our present knowledge, is by the act of inspiration, in which the vacuum produced in the thorax extends in the same degree to the cavity of the spine and cranium, causing the sinking of the cerebral surface, which is so familiar to physiologists.

The heart at the same time propels the arterial blood with a certain force into the cranial cavity. The amount of this force has been very accurately measured by the instrument of Poisseuille, and has been found to vary at different times according to the degree of fullness of the vessels, during inspiration and expiration, etc. This force of the heart's action, super-added to that of the atmosphere on the veins without the spine, would seem sufficient to cause a certain degree of pressure within the cranium, and such is the veiw generally received. But although the power of the heart's action has been very accurately measured, the resisting power of the arteries and capillaries has not, and as the arteries are not only elastic, but muscular, and contract with various degrees of force at various times, it is impossible correctly to estimate the degree in which the impulse of the blood is met and resisted by the bony walls of the skull. Nor does the experiment of opening the cranium afford much light on this point, as the operation itself causes in most cases an alteration of the respiration, which increases the pressure on the brain.

‡ For a pretty full discussion on this subject, refer to Burrows, on the Disorders of the Cerebral Circulation.

Burrows, who labors to show that this pressure is constant and considerable, seems to me not to have succeeded so perfectly as might be desired in regard to so important a point, and I think that the results of the experiments of trephining animals and observations of cases of exfoliations of considerable portions of the cranium tend to show that in a state of health, repose, and *waking*, the pressure from within very nearly balances that from without.

III. Whatever difference of opinion may exist in regard to that subject, there can be none in reference to the fact that in many abnormal states, the pressure on the brain from within does greatly predominate in such a degree as to give rise to various symptoms of disease, and even to cause death.

I propose here to notice briefly the effects of pressure on the brain and cord.

These are different, according to the degree, the extent and the suddenness of the pressure.

Marshall Hall* considered the suggestion rather as a conjecture than a well matured opinion, that sleep is caused by a slight degree of physiological pressure on the brain. He suggests, that by some muscular arrangement, the return of venous blood is interrupted in a very slight degree, and the proper degree of pressure is thus produced. This view of Marshall Hall has not received the attention which it seems to me to merit. Every one is familiar with the appearances the swelling of the veins and tissues of the face, the stertor which indicate increase of pressure on the brain during sleep and obstruction of the circulation. Long before being aware of Marshall Hall's opinion, I had arrived at the same conclusion from different premises.

I observed that in subjects affected with spina bifida and hydrocephalus, the tumor in the one case and the head in the other, were tense during sleep and lax in waking. I noticed also, that after tapping, the subjects either slept little and with

* "Pressure on the brain produces at once functional inactivity."

agitated sleep, or not at all, so long as the sac remained very lax, but soundly and even with stertor when the pressure was increased to a certain point.

Pressure on the brain, whether applied by accidental effusion or otherwise, if carried to a certain point, produces loss of function; on the cerebrum, it produces insensibility and loss of voluntary movements.*

This effect is not disputed, and not only physiological, but surgical works abound with facts in proof.† The exact manner in which pressure acts, is, however, demonstrated very clearly by Flourens, to whose work‡ I refer for more ample information. The work of Burrows already cited contains much valuable information on the subject of pressure on the brain. He shows that a very considerable effusion may exist in the cranial cavity without producing insensibility.

The effects of pressure in producing congestions, sanguineous and serous effusions, have been studied by Andral, Abercrombie, Rokitansky and other pathological anatomists in so perfect a manner as to embrace nearly every variety of pathological changes likely to occur. The true interpretation of many of these appearances remains to be given, and all the symptoms of compression, and even death, occur in some cases without any mechanical cause being discovered after death, sufficient to explain them.

IV. *Want of Pressure on the Brain.*—Want of pressure on the brain, from loss of blood, from anæmia, from sudden cessation of the heart's action, etc., produces that suspension of the function of the brain called syncope. This is, I think, undoubtedly the true cause, although there are not wanting those who regard it as due to congestion. It is incredible that

* "If an aperture be made in the skull, and the protruding portion of the brain be subjected to pressure, the immediate suspension of the activity of the whole organ is the result."

† Carpenter, Physiology, p. 530, and Draper, Human Physiology, p. 326.

‡ Experimental researches on the properties and functions of the nervous system, Paris, 1842.

insensibility, on assuming the erect posture by a person who has suffered from hemorrhage, can be produced by the fullness of the cerebral vessels.

In syncope, consciousness and voluntary movements are lost, and the heart's action is feeble or suspended. In this latter symptom, it differs from coma and apoplexy, in which the action of the heart continues with force, although more slowly than natural. If the syncope be prolonged or perfect, spasms usually occur and death from loss of blood is always attended with convulsions. This fact has been particularly insisted upon by Marshall Hall and C. Bernard.

Rokitansky has pointed out very clearly the effects as well as the causes of vacuum in some states. (Path. Anat., vol. 3, p. 287 *et seq.*) "The vacuum within the skull, produced by shrinking of the brain, is filled up principally by a clear colorless serum which accumulates in the sac of the arachnoid around the brain, in the tissue of the pia mater and in the ventricles." This form of atrophy he states to be very frequent in old age, delirium tremens and mental diseases attended by excitement. "It is in itself a very important condition, but it becomes still more so from its immediate and further consequences. These consequences are as follows:

1st. Congestion of the brain, *Hyperæmia ex vacuo.* These congestions give rise to transient or protracted attacks, which simulate apoplexy and are so frequent in old age.

2nd. Actual apoplexy.

3rd. Œdema of the brain.

"Atrophy of an entire hemisphere of the cerebrum, produced in this manner, is sometimes concentric; sometimes its lateral ventricle is dilated, then it is excentric."

The possible existence of so strong a tendency to vacuum in spasmodic diseases as to give rise to rupture of vessels and effusion, seems not to have been suspected by Rokitansky.

Marshall Hall was the first in England to show that what was called Hydrocephalus, but which he called Hydrocephaloid disease, depended not upon fullness, but upon deficient

circulation. In his work "on the Diseases and Derangements of the Venous System," p. 154, he says, "This question and that of the effects of exhaustion in infants and children, open a new field of investigation." "The subject must be taken up and investigated anew." "In this manner, some hydrocephaloid, convulsive, and even croupy affections, will be received in a new aspect."

The tendency to *vacuum*, as a cause or an accompaniment of convulsive diseases, has never, as far as I am aware, been suspected, notwithstanding that facts pointing directly to it have not unfrequently been observed. The first disease in which it has been shown to exist (without being suspected) is tetanus of new born infants.

Dr. Marion Sims first pointed out (Am. Journal, April, 1854, p. 363) that in many cases the cranial bones are overlapped, the occipital being depressed. He attributed this to the position of the child and pressure, a theory which further observations have hardly confirmed.

In the same periodical of October, 1858, p. 354, Dr. Sims, after further observations, states that in some cases the parietal bones were depressed, while in others the depression of the occipital was so slight as to require a particular method of examination to detect it.

Dr. Wm. A. Baldwin (Am. Journal for Oct., 1846,) states that in some cases of this disease he found no depression of the bones. Drs. Wooter and F. W. Clement have found this depression in cases observed by them.

This displacement has been so often noticed, that its frequent occurrence cannot be doubted. It is not however always present, nor is its presence necessarily attended with trismus. Since the first publication of Dr. Sims' views, I have often observed this overlapping in new born infants. It generally disappeared when the respiration became well established. In one case in which hemorrhage occurred, it lasted for several weeks. I have seen but two cases of tetanus in infants; in one of these there was overlapping; in the other, the child

being older, the sutures were formed so that the bones could not overlap, but in this case the anterior fontanelle was depressed particularly during the paroxysm of spasm. This appearance was sometimes noticed in convulsions in children, but I have not as yet been able to determine the circumstances in which it is present.

I conclude from these facts that the overlapping of the cranial bones in infants is, excepting that which is temporarily produced by pressure during labor, the result of want of support within, and that in this form of spasm the cerebro-spinal cavity is exhausted so that these bones are all forced inward by the pressure of the atmosphere.

That this is the true theory of this displacement, seems to be pretty clearly shown by a statement of Dr. Sims, that he, in one instance, raised up the occiput with a sharp instrument after death, and that, unless supported by pressure on the side of the head, it returned to its position with force.

The mechanical means by which this want of support is brought about, must be referred to feeble action of the heart or a peculiar modification of the respiratory movements, or both. If a strong effort at inspiration be made while the opening of the larynx is closed perfectly or partially, the effect will be to exhaust the cavity of the cranium and that of the spine. The croupy and sibilant sound often heard from the respiration of tetanic patients, shows that this closure in a degree does often exist.

The appearances, on dissection, are best explained by this theory. The most constant of these, is an effusion of blood into the sheath of the spinal cord. This may exist with a thick gelatinous effusion, a swelling of the roots and ganglia of the spinal nerves, without any signs of an inflamatory affection. In some cases, no appearances have been found in the nervous centres to account for death.

There is strong reason to believe that trismus of new born infants does not differ in cause or character, in general, from traumatic tetanus. Now, one of the most constant and dis-

tressing symptoms of tetanus is known to be wakefulness; there is an impossibility of procuring sleep. Mr. Curling remarks, during the height of the disease, *it appears impossible for sleep to occur*, and if it does, the muscles are relaxed. He remarks, (p. 152 Treatise on Tetanus,) "In tetanus, as well as in hydrophobia and delirium tremens, there appears to be a conventional license for the exhibition of opium. A drachm or two drachms of laudanum, or a scruple of solid opium every three or four hours, are ordinary doses."

"The pupil is generally found contracted in tetanus."

In this disease, in hydrophobia, in certain forms of insanity, in spasmodic cholera and delirium tremens, whenever prolonged vigilance exists, there must be not only a want of normal pressure on the brain, but a peculiar action is exerted by which the physiological pressure which causes sleep and that which gives rise to the coma from opium, are absolutely prevented.

Epilepsy. — The turgescence of the vessels of the face during epileptic paroxysms and the somnolence which follows them, seem to indicate beyond all doubt, that fullness of the vessels and increased pressure on the brain, generally exist in certain stages; yet it has often been noticed that great pallor precedes the paroxysm, and Dr. Brown Sequard has, I think, attributed the attack to spasm of the arteries of the brain. I have had an opportunity which has not perhaps been offered to any other surgeon, of observing the condition of the brain in the human subject, during an epileptic paroxysm.

On the 18th January, 1860, I trephined a patient in the Chicago City Hospital for an old depression of the skull. The patient was 29 years old; sixteen years previously he received the kick of a horse on the right side of the head, about one inch above the ear, causing a deep depression of the bone. It was noticed that soon after his character changed and he became morose and taciturn. Three years after this accident, he had the first severe epileptic paroxysm. They gradually increased in frequency until the time when he came under

my care, when they were so frequent during the day as to be numbered with difficulty.

The patient was in a state of dementia and incapable of answering qustions intelligibly. He was put under chloroform, and the depressed portion of bone removed by two applications of the crown of the trephine. A sharp edge of bone had projected through the dura mater, so that an opening in this membrane was caused by its removal. At first, the surface of the cerebrum was pressed gently against the opening, but while I was waiting for a slight bleeding to stop, and wiping away the blood with a sponge, the patient was seized with an epileptic spasm. He made a long, deep inspiration, with a hissing sound. At the instant, there was a gush of serum from the wound, and on putting my finger into it to ascertain the source of this discharge, I found the surface of the cerebrum so much depressed, that the finger could be passed between it and the dura mater with ease. The spasm continued for about two minutes, during which time the surface of the brain rose during expiration, but not so as to fill the cavity, and sank during the inspirations, as at first.

For twenty-four hours, the patient seemed doing well, answered some questions and called one of his friends by name, which he had not done before for a long time; but at the end of that time, he took a spasm which lasted an hour and left him somnolent. He died fifty-eight hours after the operation.

The head was examined seven hours after death. On raising the piece of scalp which had been circumscribed by the incisions, and passing the finger into the wound, it passed directly into the lateral ventricle of the right side. On removing the vault of the cranium the pia mater was found injected with slight opalescent appearance of the arachnoid. The substance of the brain was firm. The left lateral ventricle contained two fluid ounces of serum, the right was filled with imperfectly formed pus. The examination was not allowed to go further. It however revealed the cause of the escape of the serum from the wound, during the spasm after the ope-

ration. It came from the lateral ventricle, which was ruptured by the pressure of the atmosphere during an inspiration with the larynx nearly closed. How far the dilatation of the ventricles may be attributed to a tendency to vacuum during the paroxysms or to atrophy of the brain taking place gradually as described by Rokitansky, I will not presume to say. The case affords a striking proof of the extent to which a vacuum may be produced in the cranium by spasmodic respiration.

Nor need I stop to explain the mechanism by which such movements are capable of producing appearances of congestion in the vessels, effusions of serum, hemorrhage from rupture of the vessels, etc. I will only add, that in dogs killed with strychnine after trephining, there has seemed to be a considerable pressure on the brain, and no tendency to vacuum.

As the object of this notice is simply to draw the attention of those who have fields of observation to the subject, the treatment which these views might suggest will be deferred to a subsequent paper. It may be seen readily that the plan of Marshall Hall of performing tracheotomy in tetanus hydrophobia, etc., has relation to the points in question, and that the futility of the usual treatment of tetanus taken in connexion with the views herein advanced, naturally points to stimulation, as the treatment most likely to be successful.

Experience has already led several eminent surgeons to adopt this course, among whom may be named Dr. Carmichael. He some years since published, in the Dublin Hospital Reports, some cases treated by the ordinary method with the usual results, and added, that in view of its generally fatal character he should not hesitate thereafter to resort to the use of stimulants.

Note.—In view of the almost universal fatality of trismus nascentiun and tetanus in warm climates, and the comparatively rare occurrence of these cases in this latitude, which prevents a trial of any plan on an extensive scale, I take the liberty of asking the attention of those whose situation for ob-

servation is more favorable than my own to the following suggestions concerning the method of production and the treatment, especially of trismus of infants.

It is possible that the disease is produced by an animal poison similar to but differing from that of hydrophobia. This poison may be generated in the wound, absorbed into the blood vessels, and at varying periods, and in different degrees, produce the disease.

Considering the neutralizing properties of iodine and chlorine for all putrescent and some other poisons, it is likely that one or the other of these substances, but especially the iodine, it being the less active, may be the best preventive and even curative application. Used in substance upon the surface of the body (protected from its action) and covered with oiled silk or other impervious tissue, it rises in vapor, is speedily absorbed, as its presence in the urine shows. Its application over the umbilicus might be the means of preventing trismus, although I should hardly venture to hope it would cure it when once developed to a severe degree.

CONSTIPATION.

BY J. C. BATDORF, M. D.

The following case will illustrate the course and treatment of a certain form of constipation heretofore but imperfectly understood by a large portion of the profession, for the reason, perhaps, that its occurrence is comparatively rare.

J. G., aged seven months and a half—male child—of healthy parents—weighed nine pounds at birth, appeared well in all respects until ten days old, when the bowels failing to act with their accustomed regularity, a portion of castor oil was given, producing free evacuation. From this period, the action of the bowels was irregular; from two to four days would intervene between each evacuation, if not interfered with. A physician (an empiric) was called, who prescribed a cathartic and

MISCELLANEOUS.

STIMULATION *VERSUS* DEPLETION.

BY PATRICK FRASER, M. D.,
Physician to the London Hospital.

The question as to the utility or the non-utility of venesection in the treatment of disease, has engaged the attention of men from the earliest stages. Much has been written upon it, conflicting opinions offered, and unsatisfactory conclusions drawn; but it is reserved to the observer of the present century to witness the great contest on this matter.

The fact cannot be ignored that a remarkable change in the treatment of those alterations in the human frame from a state of health which require the employment of stimulative, and the avoidance of depletive, measures, prevails in the profession. The difficulty is to reconcile the very discordant opinions expressed as to the causes for this change, and their operative extent.

One party asserts that venesection never was, and is not now, necessary, but positively injurious. Another party holds that venesection is now, as formerly, highly beneficial in many cases of disease; although it is now less requisite than formerly. Another, or third party, cuts the Gordian knot, and resolves the whole difficulty into a change of fashion in physic.

One might imagine, judging from recent writers, that this change began about the year 1815, and was perfected about 1833, but that vacillations of opinion on this very subject have been expressed long ago, and that our ancestors have in this, as they have in almost every other matter, foreshadowed changes, will be borne out in the sequel.

The fashion party may be dismissed by observing that the allegation as to the frequent changes, do not apply in the present matter. The fashionable changes—admitting the term—are in mere matter of detail, not of principle, and refer to the substitution of one drug for another; but it is to be re-

membered that the new remedy has always more or less affinity to the one discarded, and has a similar or approximative action on the animal tissues.

The disputants may now be divided into two parties. The change is attributed by one party to our increased knowledge in the application of physical diagnosis; by the other, to a progressive alteration in the type of disease, or, as Sydenham has called it, "constitutio morborum stationaria."

I am induced to write this paper in order to place before the profession certain tables derived from the statistics of the London Hospital, the results bearing upon some very remarkable questions. But, before doing so, I think that it may not be uninteresting to many readers to give a brief history of the various opinions held upon venesection from the earliest ages, and for the further guidance of future investigators.

I may say, that having consulted nearly one hundred ancient and modern authors, I was suddenly checked in my (perhaps hopeless) labor by the statement of "Dr. Carol. Fred. Nopitisch," a physician of Nuremberg, who cites thirty writers on bleeding before the Christian era, and no less than seven hundred and ten from that period to the year 1830; and we pretty well know that the number is not small since. With this statement before me, I closed my portfolio in dismay, and determined to try something in the way of the Baconian rule, trusting that by a collation of facts, more than by theory, to arrive at some result.

FIRST EPOCH.—*From the earliest ages down to the time of Hippocrates.*

Bleeding was practised by the ancients under various impressions, such as that its effects were evacuant, revulsant, derivative, alterative, excitant, depressant. Prolix disquisitions on these various supposed powers prevail in their writings, and the fact of these opposite powers having been attributed to venesection exerts no small influence on the practice of medicine in the present day.

Our information as to the origin of bloodletting is imperfect, owing to the dark traditions of the ancients.

The Egyptians disapproved of bleeding, but the following is the version by that people of its rise: It was observed that when the hippopotamus had a headache, (whether after an undue potation is not stated,) he emerged from his watery bed, and performed the operation of bleeding by striking his ponderous foot upon some convenient sharp stone, thereby causing

a flow of blood, which he arrested at pleasure by a pledget of mud. This interesting animal has thereby the credit of having been the earliest surgical operator, as well as having taught mankind the value and use of styptics.

Pliny (His. Nat., viii., 25, 26), in a more elegant fiction, states: "The sea-horse, when too full of blood, scratches himself on rose-bushes, and then staunches the flowing of the blood by rolling in the mud." Our rose-bushes must have deteriorated in their strength of prickles, for very few of the present day would much affect the hide of the modern hippopotamus. But however this may be, it is clearly recorded, like all other matters of ancient history, that Podilarius, one of the sons of Æsculapius, practised venesection, A. C. 1134, and that the first bleeding was made on the daughter of King Dametus. The fee was liberal, being not only the patient in marriage, (who we are bound to believe was both young and beautiful,) but the Chersonese to boot for a dowry.

From the earliest period of our race, the nasal and catamenial fluxes would be observed, and noticed as often beneficial; and down to the present time there have been practitioners who have taken spontaneous bleedings as indicative for the need for general depletion. We are therefore justified in concluding that artificial means of relief would be resorted to—if not, like the polished Tahitians, by opening a vein, at least, like the rougher natives of Guinea, by plunging a knife into the flesh at hap-hazard.

Arriving at more authentic periods, we know that Pythagoras (B. C. 580) disapproved of bleeding; that Hippocrates (B. C. 420) speaks of it as a practice well known, and that he himself practised it; for the name Anaxion is given as that of one of his patients who was bled on the eighth day of pleurisy. This being the only recorded case in which bleeding was practised by Hippocrates, is by many persons considered a proof that he did not often bleed. This conclusion is not supported, however, in other parts of his writings, for this truly wonderful man gives repeated and careful directions as to the veins to be opened, and the manner of the operation; and he gives a specific recommendation to practise it in cases of apoplexy, pneumonia, and pleuritis; and also advises that the bleeding from wounds, except those entering the "ventrem internum," should not be suddenly arrested, as by its flowing inflammatory action might be lessened.

In Sprengell's translation of the "Aphorisms," Sec. 10, Aph. 29, we have the ancient oracle speaking thus: "But if

a violent fever should require bleeding, to do it in its full force and height would be to kill the patient; we must stay therefore, till the fever abates, and not bleed so much at once, but repeat it rather." This axiom is repeated by Celsus. At Sect. 10, Aph. 23, he again speaks: "Letting blood by the opening of a vein is no new thing; but to do this upon account of every disease is entirely new." Verily the oracle spoke then as would truly now apply.

SECOND EPOCH.—*From Hippocrates to Paracelsus.*

In the work of M. Freteau on "Bloodletting," there is a brief account of the successors of Hippocrates, of which, with some alterations and additions, we now give an abstract.

The most distinguished disciples of Hippocrates, namely, Diocles and Praxagoras (B. C. 340)—practised venesection; while Chrysippus and Erasistratus denounce the practice; and shortly afterwards Cleophantes employed wine extensively as a remedial agent. We may suppose, therefore, that at this remote period the discussion began, and has continued with varying fervor to our own time, as to the respective merits of depletion and stimulation in the treatment of disease.

The successors of these physicians departed into the different countries under the Roman government, and disseminated and supported the doctrines of their masters according to their adherence. For instance, Aselepiades (B. C. 90) rejected all evacuant remedies, especially bleeding; while Themison approved of its moderate use. This latter passes as the first physician who employed leeches, although there is mention made of their use so early as B. C. 140. Celsus (A. D. 10) bled children, old men, and pregnant women. Aretæus (A. D. 90) speaks of venesection, leeching and blistering. Galen (A. D. 131) declared himself an adherent to the principles of Hippocrates, and bled frequently; his chief indications were to evacuate the redundant blood in a plethora, or as a revulsant; and he appears to be the earliest writer to specify the exact quantity of blood to be extracted in special cases of disease; and in certain cases he bled to the extent of inducing "deliquum animi." About the year 280, Severus, Antyllus, and Apollonius practised arteriotomy and scarifications. The successors of Galen pursued his mode of treatment. For example, Orabasius, in 360; Ætius, 540; Alexander of Tralles, in 570; Paul of Ægina, in 670; Mesne, Serapion, Rhazes and Avicenna, during the ninth and tenth centuries. The latter states that the usual quantity of blood in a man's body is 25

pounds, and that a man may lose 20 lbs. at the nose, "and not die." Was this ever proved? Avenzoar, Averrhoes, and Albucasis, in the twelfth century; and the doctrines of the schools of Salernum, A. D. 1000; of Montpellier, A. D. 1200; of Paris, A. D. 1300; also, Gui de Cauliac, were Galenistic. The sect of Chemists appeared A. D. 1400, and their influence rather retarded the progress of the healing art, and the act of bleeding was reprobated. Further information upon the opinions of the ancients on venesection, will be found in an excellent commentary in Adams's "Paulus Ægineta," p. 319.

In the works of all the men whose names have been mentioned, although bleeding is more or less recommended, then, as now, long and angry disputes occurred as to the prophylactic and curative powers of bleeding, as well as to what veins or arteries should be opened in certain diseases. One and all, however, agree in the necessity for care in the adoption of venesection, and that so powerful a remedy should be employed only "when the disease is of a strong nature, the patient in the vigor of life, and the strength unexhausted." Celsus goes so far as to say, that "to bleed a man in the first stage of fever is to kill him;" and Galen takes the precaution to give lists of diseases in which venesection should never be practised, as follows: cacochymia, plague, dysentery, low fever, intermittent fever, serous apoplexy, dislocations; and in those in which it should be only rarely practised—viz., fractures, renal calculi, small-pox, measles, inflammatory fever; but he recommends it strongly in sanguineous apoplexy, phrenitis, and cerebritis; and we shall see that the moderns have not much more to say on the matter.

Third Epoch.—*From Paracelsus to Harvey.*

In the fifteenth century, Paracelsus commenced a reformation in medicine—a man who, "with all his faults," did good service as a thorough reformer to the science of Physic. It is quite certain that a man of his temperament would not stop short in the employment of any remedy promising to effect sharp and speedy cures. We consequently find that he practised venesection: but under what, if any, restrictions, we have no information. A reaction now took place, and Botelli, in 1577, advocated excessive bleeding, to the extent of two or three pounds at one operation, and this repeated four or five times at short intervals.

The cases on record of the large quantities of blood which have been lost without apparent injury, would lead to the con-

clusion, that the average quantity of blood in the body—viz., 30 lbs. in the adult, has been under-estimated: for example, "A phlegmatic man lost by the nose, mouth, and urine, 18 lbs. of blood, and yet there remained so much in him, that on the application of cupping-glasses, they were instantly filled with blood." (Schenck, Obs. Med., i., p. 172.) Brapavolus had a lady under treatment, in whom twenty-two pounds of blood passed from the nose; she recovered by the use of several remedies "one whereof was phlebotomy." (Comment. ad Aphor., xxiii., 15.) Marcellus Donatus (C. xxiii.) gives a case of eighteen pounds of blood issuing from the nose. Amatus Lusitanus relates a case where, within five days, twenty pounds of blood passed from the nose; another, forty pounds in six days, "whom he yet cured by phlebotomy." Montanus says he "cured one of the 'emeroids,' which bled every day for forty-five days, two pounds of blood and more." (Schenck, Obs., Med., xiii, p. 342.) Anculanus gives a case of twenty-five pounds of blood being lost in three days from a wound, and recovered; and several others are related, in which six and twelve pounds of blood where voided by the nose in a few hours, or days, but recovery always took place. Riolan has taken, in twelve hours, five pounds of blood without injury. He estimated that half the quantity of the blood in the body might be extracted without danger; and as he considered the whole quantity of blood varies in different nations, he arrived at the estimate, that a German may loose 15 lbs.; a Frenchman, ten pounds; Spaniards, Moors, and Asiatics, less in the order of their standing. That Botelli had supporters in the practice of excessive depletion, we know from Asteus, a writer in 1583, who argued that ancient as well as modern physicians erred in bleeding too little rather than too much. Van Helmont, at the same period, although he did not denounce venesection, exposed the evils arising from excessive depletion. Although we are not prepared to subscribe to his celebrated motto, "Ego sane nemini sanguinem mitto," still it is a fair question whether the excessive bleedings enjoined by Botelli and his followers, were not more injurious than the total rejection of venesection by Van Helmont and his followers. Various writers—for example, Almarico, Blondelo in 1620, J. F. Buchone in 1629, Stahl, Thouvenal, Martianus, Lancisi, Baglavi, Pascoli, Forestus, Peater, Hoffman, Amatus, and, last, Victoris Trancavellus, supported more or less the doctrines of Van Helmont; but to the credit of most of these men, their condemnation of bleeding did not

extend to the utter exclusion of it as a remedial agent, but to the avoidance of its abuse only. The last named writer enters more minutely in his condemnation by designating the diseases in which venesection ought not to be practised—viz., delirium, epilepsy, paralysis, catarrh, ophthalmia, nephritis, hypochondriasis, continued fever, scirrhus uteri, suppressio mensi, menorrhagia, ending by saying, "Nos non debere nimis proclivis nimisque liberales esse in detrahendo sanguine, ne dum Scyllam fugimus in Charybdem incidamus."

We see from the foregoing, that bleeding has been employed as a remedial agent from the earliest period of the history of the human family, but upon the most opposite and sometimes illogical principles.

FOURTH EPOCH.—*From Harvey to the Middle of the Eighteenth century.*

We now arrive at the important period when Harvey, in 1619, first publicly taught the doctrine of the circulation of the blood. It might be expected that upon this grand discovery, the wavering opinions as to the practice of bleeding would have become fixed and certain; but this consummation, "most devoutly to be wished," has not been realized; the same discrepancy of opinions and vacillations in practice are manifested in the writers of the period now under consideration. Unable, apparently, to determine on the real question whether, in certain diseases venesection should or should not be performed, the writers now busied themselves in angry discussions as to which vein should be opened in certain diseases, such as veins of the arm, hand, ankle, foot, tongue, nose, canthii majores, temple; in fact, each part of the body had some one to assert its priority. Matthæus Curtius, in the fourteenth century, enters fully into this question; and about 1534 several writers gave opinions very learnedly on the subject. For example: Leonardi Fuchsii—"Apologia contra Hieremiam Thrinerum de Venesectione in Pleuritide"—taught that the vein of the affected side ought to be opened; whereas Andræ Vaesalii at the same period affirmed just the contrary; and it is not until the year 1741 that M. Martin, in his treatise, gives such instructions as may be followed with safety and propriety at the present day. He tells us that bleeding is indicated when the patient is in the flower of his age, the strength unimpaired, the complexion good, the pulse equable, full, and strong; if he has had previously good nourishment, and if there is general heat of surface and no organic disease: that

it is contra-indicated when the patient is enfeebled and the constitution not strong, the skin and extremities cold, the pulse feeble, soft, and intermittent; if the patient has led a laborious and badly nourished life; and if there should be organic disease. Sebastiano Bado, in 1663, asserted the absolute necessity for venesection in small-pox, and the other exanthemata. Also, M. Patin, a famous physician of Paris, writes in the year 1680, "There is no remedy in the world which does more miracles than bleeding." On the other hand, we find Ramazzina, Richter, and others strongly condemning it.

At the same period, equal differences of opinion prevailed amongst our own countrymen. Sydenham (A. D. 1666) says: "Primum in curatione locum phlebotomiæ attribuo, quæ sine salutis periculo hic omitte nequit." Heberden says: "Febres ardentes raro sanantur sine detractione sanguinis copiosa et repetita." We have a treatise in 1685 by Joannis Franciscus de Francisco, "De Hodierno Practicantium abusu Sanguinem Mittendi semper in Febribus." There is also a most elaborate treatise by Henry Stubbe, a physician in Warwick in 1671. He defends the practice of phlebotomy against the "audacious and impertinent strictures" of "one G. Thomson," contemptuously called "Bacon-faced," a "pseudo-chemist," and a "pretended disciple of my Lord Verulam." This said G. Thompson seems to have had certain strong and not always incorrect opinions upon his subject. He tells us that "We are taught by Divine Writ that in the blood—the *spiritus rubeus*—is life;" that "one would think that it should put a stop to their prodigal, profuse bleedings, if they did but consider with what difficulty nature brings this *solar liquor* to perfection." He was no fool when he observed, "They should never attempt—yea, rather abhor—to enervate in the least, by the lancet, the strength with its correlative blood and spirits, without which there is no hope of a cure; for," he adds, "manente causa, manet effectus." That Dr. Stubbe was honest in his belief as to the efficacy of venesection is fully evinced by his "practising what he preaches." He tells us: "In short, I have myself been let blood above fourscore times, and yet am lean; and so far from being feverishly inclined, that I never had any, except the measles once, and small-pox twice, and twice a tertian ague." Rejoice, ye physicians of the present time, at your exceptions!

An array of learned theses during this epoch, and closing in upon the end of the century, upon this universal subject,—"De Recta Sanguinis Missione,"—sufficiently attest the divi-

ded spirit of the time: Dr. White, in 1712; John Van Coxie, 1725; Dr. Mentyles, 1744; John Huggan, 1771; Francis Cuel, 1775; William Drannan, 1778.

FIFTH EPOCH.—*From* 1750 *to the present time.*

It is manifest that our forefathers were fully alive to the difficulties involved in the question of the employment of venesection in disease, also to the necessity for care and discrimination in its application; that they held in view the age, sex, temperament, condition of patient, climate, and prevailing diseases; that they were, as we are, often sorely puzzled by discordant opinions; and it is painfully evident that in ancient, as in modern, times blood has been let when it had better not, and not let when it had better been let. Clutterbuck felt this strongly, and he, not very logically, comes to the conclusion that bleeding is useful when it is useful, and hurtful when it is hurtful: somewhat like the justice, who, in his summing-up in a doubtful case, consoled himself by remarking, "If I'm right I'm right, and if I'm wrong I'm wrong."

Several writers allege that the change from depletion to stimulation dates from the first invasion of the cholera morbus in 1830; but we have in evidence that it began much earlier —in fact, that similar discussions date from a very early period. Lind, in 1774, in his essay on the "Health of Seamen," p. 159, says that the physicians in the West Indies began to doubt the benefits of venesection. Hewson, in his original paper, (vol. lx., p. 406, "Philosophical Transactions,") doubts the propriety of bleeding. That Cullen had misgivings is obvious. In book i., par. 139 and 362, of his "Practice of Physic," he says—"Nothing is more evident than that bloodletting is one of the most powerful means of diminishing the activity of the whole body."...."It is, however, to be attended to, that a greater evacuation than is necessary may occasion a slow recovery; may render the person more liable to a relapse, or may bring on other diseases." (par. 140.) "From all this it must appear that the employing bloodletting in certain fevers requires much discernment and skill, and is to be governed by the consideration of the following circumstances: —1st, the nature of the prevailing epidemic; 2nd, the nature of the remote cause; 3rd, the season and climate; 4th, the diathesis present; 5th, the period of the disease; 6th, the age, vigor, and plethoric state of the patient; 7th, the patient's former diseases and habits of living; 8th, the appearance of the blood drawn out; 9th, the effects of the bloodletting that may

have been already practised." (par. 142.) It may be seen that Galen and Trancavellus had long before laid down similar rules.

M. Freteau, in 1816, says: "De nos jours, les constitutions sont moins fortes, les individus moins plethoriques, les maladies franchement inflammatories moins communes."

So early as 1817, Dr. Christison noticed a change in the treatment of fever; but especial attention was drawn to this subject by him in 1834. He writes thus: "Our patients ceased to sustain free venesection, a few ounces of blood bringing on faintness, and the constitution refusing to rally afterwards." The contrast of the foregoing observation with what he writes in his thesis in 1819, is most remarkable. He there describes the "pulse as being at 160, hard, and incompressible; the temperature of the body at 107°; and the blood spouting out with amazing force on opening a vein." At the same period of time, Dr. Macintosh, a man of great energy and originality, who had for many years advocated strongly the practice of of bleeding, especially in the cold stage of ague, writes, in vol. i., p. 472, of his "Practice of Physic," "within the last fifteen years I have seen several cases where considerable injury had been inflicted by very large bleedings."

In the year 1820, a stronger reaction party existed in the College of Edinburgh, as indicated by several theses of that date, in favor of venesection. The following are examples: Wm. Garland says: "Inter omnia remedia ad morbos varios sanandos, quibus corpus humanum obnoxium est, nullum ma jore effectu vel eventu feliciore quam sanguinis detractio adhibetum." John Barne (1821) says: "Medici omnibus sæculis missionem sanguinis remedium esse eximium arbitrati sunt." John Halkenston (1821): "Nostrorum temporum opiniones variæ sunt sed in universum medicorum animi magis de hoc remedio, quam de plerisque aliis consentiunt."

It was about this time that we have it also recorded by truthful and acute observing physicians,—for example, Gregory, Radcliffe, Alison, Watson, and others,—that they required in their own persons, for acute disorders, large depletions, which were followed, as attested by all them, with great and unmistakable relief to their sufferings. We have seen also, in our explorations of the writings of ancient as well as modern authors, that the employment of bloodletting, as a remedial agent, was not always in a fixed ratio. Unfortunately, the medical writers of the different periods simply state the fact, but have not left us information as to their opinions of the

causes. That causes do exist seems certain, for surely the cessation in the employment of bloodletting has followed, and not preceded, the change.

We have now reached a period in which even more angry and censorious discussions took place than heretofore, between men whose opinions demand reverential, careful, and watchful attention. Dr. Alison and Dr. Bennett were the champions. Both agreed as to the fact of a change in treatment having taken place, but differed in opinion as to the cause or causes. The former attributed it to an alteration in the type of disease, thereby inferring some occult change in the human constitution; and if this be true, we may also truly infer that the excessive bleedings practised by our forefathers were probably quite right and necessary, thus rescuing their mode of practice from the unmerited obloquy which has been cast upon it by several writers. Dr. Bennett places the change to an increased knowledge in the art of diagnosis. We have no intention of entering minutely into the merits of the late controversy, but we would observe, that it appears to us that Dr. Alison, in allowing his antagonists to apply their arguments to pneumonia alone, weakened his ground; for if this improved diagnostic power be worth anything, it ought to apply to all diseases which is not attempted; but to all diseases the limitation in bloodletting applies. Again; we admit that through our increased diagnostic power, we are better warned not to bleed in pneumonia after consolidation of the lung has taken place. But this does not explain why even in the acute state of crepitation bloodletting is seldom resorted to now, but which would have been practised thirty years ago, *pleno rivo*, even in the absence of the assumed superior diagnostic power, and with great benefit to the sufferers; neither will it explain the advance in the use of stimulants *pari passu* with a decrease in the employment of depletants.

Drs. Christison, Alison, and others, have alleged the change in the type of disease to proceed from certain atmospheric influences. The former dwelt strongly upon the impoverished state of the poor population, evinced by the scorbutic diathesis, and the prevalence of cholera; but the fact that all ranks of the people, from the patrician to the peasant, have become subservient to the change, invalidates poverty as the main cause, and we know that the change had begun long before the modern cholera appeared. This party does not, as has been alleged, declare that the *modus operandi* of inflammatory action, or its effects, is changed; but simply that inflammation is not now attended by high arterial action.

It has not been, and probably never will be, proved what causes are in operation to effect the remarkable variations which have occurred in the symptoms of disease, and in our anxiety to appear to have some definite views, we are almost impelled to the *non causa pro causa.*

We can scarcely avoid the conclusion that certain causes are operating in cycles; that, in fact, the human family are subjected to periodic changes, impressing, as it may happen, a stenic or asthenic character, on the prevailing diseases. If this idea should be recognised as a fact, the extraordinary discrepancy of opinion as to the curative value of bloodletting would be reconciled and explained. That this change is not merely local, but pervades the length and breadth of the land, and that it has been recognized throughout Europe and America, is shown by the general intolerance of bleeding, not only in man, but amongst domestic animals, as proved by veterinary practitioners. In our experience we have witnessed exemplifications of this change. We remember cases similar to those commented upon by Stephens, Turnbull, Watson, Symonds, Hastings, Richardson, and others, where the injected eye, flushed face, burning heat of the skin, violent arterial throbbings; the incompressible, sharp, and wiry radial pulsation; urgent dyspnœa, a red tongue, intense headache, and other local pains, unattended with muscular debility, appeared to render bloodletting imperative. Contrast such cases with those, with few exceptions, now witnessed in town and country practice, in which there is little or no heat of skin, no arterial excitement, feeble and easily compressed radial pulsation, a white, loaded, and flabby tongue, a pearly-white conjunctiva, not much pain, but extreme prostration, urging to the employment of stimulants.

We have reason to believe that these changes in the type of disease occur sometimes at very short intervals. In China, during the month of February, 1830, an epidemic fever occurred amongst the English sailors, in which the tongue was white and loaded, no arterial excitement, and no pain. In the month of May following, a second epidemic appeared, during which the symptoms were—headache; pulse from 80 to 110, full, and bounding; tongue clean; severe epigastric pain. The following comment was made at the time: "We believe this fever to be of a different type from that witnessed in February;" and the question is put, "Is bleeding necessary in both types?"

The history of influenza will furnish many similar instances.

Everyone knows the variations which have occurred in the symptoms of this malady, requiring a complete change of treatment. We know, indeed, that from the earliest ages the symptoms and organic lesions have varied in similar epidemics. There have been variations noticed even in the same epidemic at different periods of its history.

In the foregoing paper, we have seen the small result after all the disputation; and although the grand fact that an extraordinary increase in the employment of stimulants, and disuse of depletants, is going on is generally recognised by the profession, it has not been demonstrated by undeniable statistics. This we shall proceed to do. The tables *in extenso* would occupy too much of the valuable space of this journal, but we consider that the following summary will be sufficient to enable the reader to draw inferences and deductions. Seeing that the bloodletting controversy is still open, and as in its settlement there are involved points of great practical importance, it behoves all practitioners to note carefully the effects of the stimulative or depletive system in the treatment of disease; for it becomes a practical as well as a scientific question to ascertain the difference, if any, in the mortality in the practice of medical men, who notoriously prescribe excessive, moderate, or no stimulation at all, or the reverse; for only in this way, in this particular matter, can error be detected and truth substantiated.

It becomes more imperative in us to urge a general statistical inquiry, seeing that, in this the first published document of the kind we are obliged to admit that the results are negative and contradictory; and it will be only by a collation of similar reports that our aspirations may be realized.

We admit that, before we can draw absolute truth from statistical data in the matter, we ought to have an equal number of cases—the age, sex, and previous habits—an equality in the intensity and duration of the symptoms; for it is an inseparable element of disease that in no two cases will the phenomena be exactly alike; and it is this very dissimilarity that calls for the acumen and observing power required by the medical practitioner. But it is evident that, if this rule were rigidly enforced, we should be deprived of all aid from medical statistics; and we must be content, therefore, with approximative truth.

Considering the importance of the question at issue, whether taken in a sanitary, prophylactic, or financial view, it would

be highly valuable to possess authentic records as to the practice of venesection and other depletory measures, and of the expenditure of the various items comprised under tonics, stimulants, etc., with the corresponding mortality, in the various hospitals of London, and elsewhere. Unless this general information be possessed, a serious error would arise in an attempt to generalize upon limited data. We must take into account also the varying and unavoidable causes in constant operation, quite irrespective of any peculiarities in the mode of treatment and diet, such as good, bad, or indifferent drainage and ventilation, and all other sanitary conditions which must affect the mortality of a large general hospital.

In the following summary of the tables, we give, for the convenience of comparison, three decennial periods.

In 1835, there were treated as in-patients in the London Hospital, 2735 persons, of whom 277 died, being at the rate of ten per cent. During that year, there was expended for these 2735 patients, the sum of £615 for beer; £346 for wine; making a total of £961. To counterbalance the effect of these stimulants, blood was drawn by 33,950 leeches, to say nothing of bleeding and cupping, then largely practised.

In the year 1845, there were treated as in-patients 3625 persons, of whom 228 died, being at the rate of 6¼ per cent.—These patients consumed, in the course of their treatment, wine and spirits to the amount of £848; or, to be more minute, they drank 10 gallons of brandy, 236 gallons of wine, 10 gallons of gin, and 96 gallons of spirits of wine besides were exhausted. To meet this alcoholic accumulation, blood was drawn by 33,800 leeches, to say nothing of venesections, cuppings, etc.

But what transpired in 1855? In that year, 3947 patients were treated in the Hospital, of which number 294 died, being at the rate of 7½ per cent. This number of patients consumed during the year, 143 gallons of brandy, 1153 gallons of wine, 60 gallons of gin, and 144 gallons of spirits of wine were exhausted, at a cost of £1796, as against £848 and £961 for the two previous decennial periods. But now appears the strange fact, that during the year 1855 the effects of this accumulation of alcohol were diminished by the quantity of blood drawn by 4400 leeches only, with, perhaps, not a single venesection, and at an average of not more than two cuppings per week, as against 33,800 and 33,950 leeches, frequent venesections and cuppings, for the two previous decennial periods.

Pursuing this inquiry, it is found that in the year 1837 there

were used in the London Hospital only 29 oz. of quinine, and 101 lbs. of bark. Whereas in the year 1857 the consumption of these and analogous drugs were as follows: 54 oz. of quinine, 478 lbs. of bark, 600 oz. of the disulphate of bark, and 47 oz. of the quinine with the citrate of iron. The number of patients in 1837 being 2961; in 1857, 3935; and the per-centage of deaths being respectively—for 1837, 14 per cent.; for 1857, 8 per cent.

The two years above noted are sufficiently approximate to allow the same line of argument as for 1835 and 1855.

Attention should be drawn to the fact that in the year 1844 there was expended for stimulants only £821, being the *smallest* amount during a period of 22 years; and that the mortality in that year was 6 per cent. the *smallest* per centage of mortality during the said period of 22 years. We are not quite satisfied but that, if a rigid inquiry were made, the largest mortality would be found where the largest quantity of stimulants was given. It is to be observed that in the year 1851, when the number of patients—viz., 4051—was larger than in 1857—viz., 3935,—the mortality was nevertheless greater during the latter year, as 8 per cent. to 6.50 per cent.; although the increase of expenditure for articles of luxury, &c., during 1857, exceeded that of 1851 by the large sum of £962.

Another puzzle is presented on looking upon the results of the year 1858. We have in this year a less consumption of wine and spirits (namely £573 3*s.* 3*d.*) than during the preceeding 23 years, the average for the 24 years being £1055; but the quantity of tonics remains nearly the same as in 1855: —Ammonia sesqui., 140lbs.; quinine, 50 oz.; quinine and citrate of iron, 5lbs.; bark, 511lbs.; disulphate of bark, 660 oz.; leeches, 3900.

The table from which the following additional summary is compiled brings into view rather startling and puzzling facts. It extends over a period of ten years, and therefore is a perfect average, and we have divided it, for our present purpose, into two quinquennial periods. It shows a direct rising increase annually in the expenditure of wine in the treatment of their patients by the physicians and surgeons of the hospital; and it so happens that from changes in the staff this decennial period embraces the practice of six physicians, rendering the alterations in, at all events, the medical practice less likely to have arisen from any peculiar or personal views.

To economize space, we have not given the quantities employed by each individual physician or surgeon, but the aggregate.

From the year 1849 to 1853 inclusive, the annual average quantity of wine employed by each physician was 4928 ounces. During the same period the annual average number of patients under the treatment of each physician was 390; the annual average mortality being 9·68 per cent.

From the year 1854 to 1858 inclusive the annual average quantity of wine employed by each physician was 12803 ounces. During the same period the annual average number of patients under the treatment of each physician was 391; the annual average mortality being 11·87 per cent.

In the surgical wards a similar unexpected result is observed.

From the year 1849 to 1853 inclusive, the annual average quantity of wine employed by each of the surgeons was 17,533 ounces. During the same period the annual average number of patients under the treatment of each surgeon was 1075; the annual average mortality being 4·48 per cent.

From the year 1854 to 1858 inclusive, the annual average quantity of wine employed by each of the three surgeons was 38,016 ounces. During the same period the average annual number of patients under the treatment of each surgeon was 1036; the annual average mortality being 5.06 per cent.

It may be supposed that, as regards the medical cases, this unexpected result proceeded from a difference in the kind and severity of diseases which were fatal during the periods included in the calculations. Information on this point in these cases is not available; but as regards the surgical cases the record is complete and correct, and from it we learn that this cause does not operate, as the remarkable fact is demonstrated by another table that the annual average number of each kind of accident during a period of ten years is very nearly alike; thus adding one more illustration of the unexpected fact elicited by statistics—namely, that the mechanical causes producing accidents in a fixed population are pretty permanent; for we cannot assume that there has been an unusual severity in the character of the accidents. The table gives a more extended basis, as regards surgical cases, to this inquiry, as it includes the outpatients as well as the in-patients; and we see at once that the same regularity continues in the kind of accidents with the larger number of patients. We repeat that we should be very sorry even to attempt to generalize on the limited data now presented to the reader;

nevertheless we do consider that the facts brought out in these tables are of sufficient weight and importance to warrant us in asserting that the profession ought to pause in an indiscriminate employment of stimulants and tonics, especially the former, in the treatment of disease, even of apparently an asthenic character. Many excellent men—Mr. Higginbottom, for example—have denounced the stimulant treatment *in toto*. We are not yet prepared to go so far, for where there is so much of doubt, it behoves all of us to entertain tolerant views. —*London Lancet.*

ON MUSCULAR POISONS.

BY M. CLAUDE BERNARD.

There exists other poisons which equally destroy the vital properties of the locomotive apparatus, although a totally different histological element becomes the seat of disorganization. We allude to the toxic agents which abolish contractility in the muscular tissue; you will find them infinitely more numerous than those which confine their action to the nerves. Among this class of bodies, digitalis and upas antiar* have already been mentioned; and the attention of American physiologists has lately been drawn by Drs. Hammond and Mitchell, of Philadelphia, to the properties of two other substances which are known by the Indian names of Corroval and Vao. Their action is similar to that of upas, although of greater intensity. The active principle of the veratrum album or veratrine, a substance now frequently employed in practice, also exerts its influence upon the muscular fibre, to the exclusion of all other tissues; and a large number of poisons, with the chemical composition of which we are imperfectly acquainted, evidently belong to the same class.

The small arrows now placed before you were forwarded to us by M. Boussingault. These weapons are extensively used in South America. The nature of the substance with which they are impregnated is still a mystery to us; they are supposed to have been charged with woorara, but their action is of a totally different kind; the muscular, not the nervous, fibres are affected by the wounds which they inflict. Although unable to state in a positive manner what this poison really is, I am tempted to believe that the venom of toads is the substance employed. The Indians of New Grenada are know to

* There exists another kind of upas, which is merely a preparation of strychnia.

make use of a small variety of this animal, which is found in great abundance in that country, for the purpose of poisoning their weapons. After collecting a large number of toads, they impale them upon wooden spits and roast them alive. The heat causes the animal to eject its venom, in which the arrows are dipped. This latter substance is known in fact to exert a most powerful action on the muscular tissue. But the unknown principle with which these arrows are impregnated differs so completely in its properties from those usually attributed to animal poisons, that we shall seize the present opportunity to enter into some considerations on the subject of venoms in general, and that of the toad in particular, our conclusions being the result of the researches we have lately undertaken on this interesting and hithorto obscure part of toxicology.

The effect produced on animals by these poisoned arrows would appear at first sight to be strictly similar to those produced in our own climate by the venom of toads; but when we enquire into the chemical composition of this new substance, we find it to be a perfectly stable compound, the properties of which are not destroyed by plunging it into boiling water or dissolving it in alcohol. The arrows which have been allowed to rest for a certain space of time in this latter solvent, are found to have lost their destructive power, although no change has taken place in their dark-brown color; and the liquid in which they have been kept being gradually evaporated, the solid residue left behind appears to contain the active principle which imbibes them, for on redissolving it in water, a poison is obtained which produces on animals the same effects as the arrows themselves.

But the opinions usually entertained with respect to venoms are entirely opposed to such a result. Animal poisons are in general considered as resembling ferments in their chemical properties, being easily destroyed by the action of heat, and modified by dissolution in alcohol and other powerful solvents. We ought, therefore, in accordance with generally received opinions, to have surrendered our former hypothesis; but however satisfactory the inductions drawn from previously ascertained facts may appear, an experimental verification is always indispensable in sound physiology, even in those cases in which it seems useful and almost absurd to require experimental proofs. Acting in conformity with this rule, which has always directed us up to the present time in our labors, we have examined in its turn the venom of toads for the pur-

pose of ascertaining whether its characteristics were really such as had been supposed, and, contrary to our expectations, we have found it to be soluble in alcohol, and in all other respects as stable a compound as the active principle of these American arrows, for the action of boiling water destroys none of its properties.

It had been supposed, however, that no venom was fatal to the animal itself which secreted it; and as the poisonous arrows produce marked effects upon the toad, we found it necessary to try upon this animal the results produced by the inoculation of its own venom, in order to ascertain whether the opinion generally entertained on this point was scientifically true. The experiments undertaken for this purpose do not allow the slightest doubt to remain on this point. The toad is killed, like other animals, by the inoculation of its own venom; it is, however, true that the action of this poison is infinitely less intense in toads than in frogs, of all other animals those which resemble them most in organization; and it might hence be inferred that a certain degree of truth exists in the above-mentioned opinions. Let us bear in mind, however, that the resistance of the toad to all kinds of poison is infinitely superior to that of the frog; that strychnia, upas, and various other substances act in much smaller doses upon the latter than upon the former animal—a fact which agrees with the lower excitability of the nervous system in toads.

All these phenomena may therefore be reduced to a general principle, which we have strenuously endeavored to inculcate in the course of the present lectures, namely, that no essential differences exist between the homologous tissues of different animals; that properties observed in one case are found to exist throughout the entire scale of being, although, considerable variations in their intensity are met with even in the case of neighboring species. You also perceive that our knowledge of venoms is less advanced than the other branches of toxicology, and that is urgent to repeat a new series of experiments on each of those substances in particular; for we are not prepared, up to the present moment, to attribute the properties enjoyed by the venom of toads to the whole series of animal poisons; further researches are indispensable to settle the question.

Let us now, gentlemen, after this digression, resume the explanation of the effects produced by muscular poisons. The principal result of their action is sudden arrest of the heart's motion; and in this respect they might also be divided into

two classes. Some of them act upon the heart before affecting the voluntary muscles; such is the case with digitalis and upas antiar. Corroval and vao enjoy this power in a still greater degree. The reverse is the case with other poisons; they act upon the voluntary muscles at first, and do not paralyze the heart till a latter period of the destructive process; the American arrows belong to this latter class. It is therefore easy to conceive how wide is the difierence between the intensity with which these poisons act in animals differently organized. A very small dose of corroval produces instant death in birds; a mammal survives a few minutes; while frogs resist the action of this substance for a considerable space of time, these animals, as you are aware, being able to survive a few hours after the total ablation of the heart.

We shall now perform a few experiments on various animals with these different poisons, and you will find that far from resembling woorara and strychnia, which destroy life without leaving the slightest vestige of their action, these muscular poisons actually produce deep physical changes in the tissue which loses its physiological properties under their influence.

(At this stage of the lecture a couple of pigeons were brought forward; an incision was made into the breast of both, laying bare the muscular fibres, and on applying test-paper, a decided alkaline reaction was met with in both cases. One of the pigeons was then killed with a poisoned arrow, the other with a solution of woorara injected into the cellular tissue. A frog was at the same time poisoned by introducing a small dose of corroval under the skin; it was then replaced in the jar from which it had been taken.)

You perceive, gentlemen, that the muscular tissue offers a decided akaline reaction in the healthy state. But in animals poisoned with any of those substances which act upon the contractile elements, the reaction of this tissue becomes acid, and the *rigor mortis* occurs immediately after death; two changes which spontaneously take place in dead animals, but only after a space of twenty-four hours has elapsed. The electrical properties of this tissue equally undergo a singular alteration, for, in the ordinary state of things, the external surface of a muscle is positively, and its internal or cut surface negatively electrified; the reverse is the case in animals poisoned with these toxic agents. And, lastly, on opening the bodies immediately after death, the heart is found contracted, motionless, rigid, and totally empty, so that its transparent walls in

the frog have lost the ruddy color imparted by the presence of blood within the cardiac cavities, and appear perfectly white and colorless.

In all such cases the muscular element alone has been acted upon; for if on poisoning an animal with one of these agents, you were to apply a ligature round one of the limbs, and thus prevent the poison from reaching it, you would find that while the other muscles of the body remained insensible to the action of galvanism, those of the limb of thus preserved, would really obey its influence, when excited through the corresponding nerves; a proof that the muscular fibres alone have in this case been interfered with, the nerves retaining as before all their vital properties.

(The bodies of the poisoned animals were now opened; in the pigeon killed with an arrow, the heart was found rigid and motionless, the muscles stiff, and incapable of responding to the galvanic current. The same phenomena were observed in the frog, the heart of which was particularly rigid and perfectly colorless. On testing the muscles, their reaction was found decidedly acid. In the pigeon killed with woorara, the heart was found still in motion; and when at length its pulsation had ceased, galvanism was applied to it, and caused the parietes to contract; the muscles of the limbs responded readily and powerfully to the same agent and their reaction was alkaline.)—(*Medical Times and Gazette*, September 29, 1860.)—*N. A. Review.*

TREATMENT OF SCROFULOUS LYMPHATIC GLANDS.

BY P. C. PRICE, ESQ., &c.

General Treatment.—In all diseases in which complication exists, prescribed forms of treatment must be more or less modified; and this observation is particularly relevant as regards the therapeutical management of this special glandular affection. It has been stated that, in all probability, in the majority of cases in which this derangement occurs, it obtains as a result of certain causes which have an extra lymphatic origin; and, therefore, before any hopeful treatment can be adopted, it is highly advisable that they should, if possible, be

recognized. What these causes may be, it is often difficult to determine; but frequently a decided departure from health will point to some impairment of the digestive, secretive, or absorptive functions. It must be allowed, I think, that this kind of glandular affection is generally met with in each of the divisions which so commonly admit the development of strumous disease, viz.: the sanguine, phlegmatic, lymphatic; so that if in certain instances it appears to be but slightly, if at all associated with well developed scrofula, still it must be ordinarily considered as in some way or other connected with this peculiar diathesis. Believing that the simpler forms of the affection, when appearing in the external glands, although not appreciable in those of the mesentry and other internal structures, are dependent on systematic causes, I usually commence the treatment by regulating the proper action of the various viscera. This is best accomplished when the *primæ viæ* are at fault, by unloading the bowels, and maintaining their proper action. Constipation is a very frequent accompaniment of glandular swellings, and it is astonishing to see how an alterative course of medicines is attended with almost immediate good effect, provided the disease has not been too long established. Mr. Abernethy was in the habit of treating these cases with calomel; but with what special views he used this powerful medicine does not clearly appear even from his own description. Although as a rule I do not resort to the administration of calomel in large and continuous doses, still there is no doubt that mild mercurial preparations are often of value, as the liver is generally torpid in its functions. For reasons already stated, I prefer small and repeated exhibitions of hydrargyrum cum creta in combination with compound rhubarb powder, or some alterative. To improve the tone of the digestive and assimilative powers is all important; for, as long as these remain neglected, the proper action of the various organs cannot take place. Mineral acids in combination with bark, quinine and iron are the most available adjuncts for restoring a healthy tone. For the more immediate treatment —reduction—of the disease, iodine, bromine and cod-liver oil have, during the past quarter of a century, taken the first rank; and, if cure is to be obtained, perhaps no specific remedies are more valuable. Iodine and bromine may be exhibited in one or more of the forms already described, or in any of those which will meet with further consideration. When speaking of the action of iodine on indurated glands from vascular derangement, it was stated that the administration of

the drug was not always so rapid or certain in its effects as could be wished for; and that not unfrequently disappointment followed even its most pertinacious use. This remark is even more applicable to the treatment by iodine of this form of glandular mischief than the last described; for considerable experience has proved to me that even its very extended exhibition is oftentimes attended with failure. Various reasons may be assigned for this want of success: but, whatever may be the correct one, it is more than probable that in the majority of cases of confirmed mischief a hidden influence is at fault in keeping up the irritation, over which iodine has little or no control. In one instance, in particular, in which the constitution was saturated with iodine, little or no amendment or reduction in the gland swellings resulted. It may be asked—this important agent being oftentimes incapable of inducing resolution, or even arresting the further progress of the disease—what means should be adopted to procure amendment and cure? I fear even the most sanguine and experienced practitioner will readily admit that many cases, in which this form of glandular affection exists, are not really amenable to the treatment of any fixed medicinal means, and that the good to be expected is chiefly derivable from change of climate, and from the removal of those unwholesome influences to which the subject of the affection may be exposed. Rapid amendment in such cases, occurring especially among the poor, by this plan of rational treatment is frequently most marked. Much has been said and written on the direct advantage of sea-air and sea-bathing; and, while many excellent writers have been far too laudatory in their recommendation of these means, others have not sufficiently noticed the benefits which their employment often affords. Ample observation among both private and hospital patients at Margate, has assured me that immediate advantage is very frequently to be gained by a sea-side residence, and a free recourse to sea-bathing, provided it be not contra-indicated by reason of certain complications of constitution and disease. If, with these means, treatment by iodine, cod-liver oil and tonics is added, I believe marked amendment and cure will oftentimes be obtained when but little hope was entertained from either ere change of climate was obtained. But, although a residence by the sea is often advantageous in the management of cases dependent on this kind of glandular disturbance, still it often happens that a less bracing and inland locality is more suitable. Individual cases must be managed according to circumstances; but, as a

rule, I believe a change of climate and residence is often expedient, and even necessary, when medicinal means solely employed have failed. It has already been hinted that this form of glandular affection, when limited to the external lymphatic ganglia, after arriving at a certain stage and becoming permanent, is frequently unaccompanied with any strongly marked evidences of disturbance of the general health. In fact, it is not rare to see individual cases in which not the slightest effect is produced on the system. I have lately been interested in a case of this description, in which the glandular enlargement, especially of the cervical ganglia, has existed for years, and no perceptible effect has been produced on the constitution and vigor of the patient. The case has been under notice for a considerable period, and a large amount of iodine has been taken without having exercised any or little effect on the glandular system. This form of hypertrophy is more permanent when once established than other chronic enlargements; and frequently no perceptible changes are induced by the variations of seasons and temperatures. But, although this condition of hypertrophy is oftentimes comparatively harmless, still it is apt to progress to such an extent as to cause not only inconvenience but danger from mechanical causes. Moreover, fear is to be entertained that any subsequent complication may give rise to still more important lesions; for it has been noticed that more marked scrofulous and true tuberculous mischief is apt to arise, especially if the strumous diathesis be strongly portrayed; and it is on these grounds, if not on others, that such medicinal and general treatment should be adopted as is most likely not only to cure or amend the affection, but to prevent the occurrence of more distressing and dangerous complications.

Local Treatment.—Although local treatment by means of certain applications has been highly extolled by many observant practitioners, still, I believe that a due consideration of the pathological changes that have induced an alteration in the condition of the affected glandular apparatus will at once show that much advantage is not, as a rule, to be hoped for from mere mechanical and therapeutical applications. When such means are, however, employed, either solely or with internally administered medicines, it is customary to adopt the use of those agents which have already been and will presently be more fully considered, viz.: blistering; paintings with iodine, bromine, and their salts in the forms of tinctures, etc; frictions with various powders, ointments and oils; and the constant

application of various solutions containing mineral salts, etc. But much harm instead of good may arise by a too pertinacious use of one or more of these various means. I have not unfrequently seen cuticular and cellular mischief occasioned by a too persistent application of iodine; while little or no appreciable advantage has been derived, so far as diminution in the glandular derangement was concerned. When enlargement is dependent on plastic material, doubtless iodine, etc., topically applied, is of some value; but judging from my own experience, I cannot recommend, with any great hope of success, the treatment of this special form of glandular hypertrophy by local discutients, absorptives, etc. Sometimes diminution in size of implicated glands of this nature does ensue from repeated and long continued topical applications of iodine, mercury, etc.; but then, I believe, the general system has become more or less affected through absorption, as I have seen verified on more than one occasion.

Direct surgical treatment is, however, sometimes needed, as it may become expedient to remove one or more hypertrophied glands, which by reason of accummulation in size, occasion not only deformity and inconvenience, but positive danger. Caustics and the knife are the two chief means in the hands of the surgeon to effect reduction or absolute removal. The application of caustics for such purpose has met with some consideration in previous pages, and I have only to reiterate what was then stated. Although a resort to caustics is in general, I consider, not only erroneous, but decidedly bad practice, still there are occasions when no other agent will prove of like advantage. The way in which caustics act when employed as a means of destruction, is by causing inflammation and suppuration of the tissues with which they are in contact. Such changes are more or less rapidly induced, in proportion to the agent employed; while the disturbance generated is in relation to the extent of local destruction and constitutional temperament. I have frequently known very serious results follow this plan of treatment, and I have rarely put it in practice for the removal of this form of glandular mischief.

When it is really expedient and necessary to take away one or more hypertrophied glands, the knife will be found the most certain, least painful, and efficient means at the disposal of the practical surgeon. Care must, however, be taken to select only such cases as are well marked for operative interference. When the gland-tumors are situated in close relation to large arterial and venous trunks and nerves, extra judg-

ment is required in advising and performing an operation; for experience has fully shown that danger is apt to arise therefrom. An example of injudicious interference has been current since the days of Celsus; and there are few surgeons who cannot recall to recollection similar instances of bad practice. When circumstances are favorable, and removal well and carefully executed, success will in general attend direct and judicious surgical interference; for a slight scar will by the majority of patients, especially by those who take pride in the advantages of personal appearance, be deemed of less moment than an unsightly and irreducible gland swelling.—*Brit. Med. Jour.*

ON THE MORBID APPEARANCES IN DEATH BY COLD.

BY FRANCIS OGSTON, M.D., OF ABERDEEN.

(1) A woman, forty-four years of age, a vagrant, was found dead by the roadside, on the morning of April 24th, 1860. She had been drinking whisky when last seen, the evening before; the night had been stormy, and there was snow on the neighboring high grounds at the time.

The body "was lying on its right side, the clothes wet, the arms by the sides, the knees approximated, the left knee fully, the right knee partly bent, the eyelids closed, the pupils natural, the mouth half open, the expression of the countenance placid, and the face, the outside of the left arm, and the fronts of both knees of a bright red hue, contrasting with the pallor of the rest of the surface, the back included, which everywhere showed well-marked cutis anserina.

"The appearances at the inspection which followed were as under: Scalp bloody; arachnoid membrane thickened and opaque; cerebral sinuses empty; blood in moderate quantity in the veins on the surface of the brain; cerebral mass paler, and containing less blood than usual; the cavities on each side of the heart, and the arteries and veins opening into them, distended to an unusal extent with blood, mostly in a fluid state, but mixed with a few red and colorless (fibrinous) clots. The blood in the heart and elsewhere nearly of the hue of arterial blood, and, unless when in bulk, after a few minutes' exposure to the air assuming wholly that appearance.

Frothy mucus in the larynx and trachea; mucous coat of the trachea minutely injected; clusters of small petechiæ on the interior of the stomach, whose contents (milk curd) exhaled a spirituous odor; liver a good deal congested; the remaining viscera of the abdomen remarkably pale and bloodless; urinary bladder enormously distended."

(2) A man aged thirty, a street porter, traveling on foot on a very cold night, drank some whisky and ale at a tavern; he then got on a cart to sleep while riding, and when the party stopped, having gone eight miles, he was found to be dead.

Dr. Ogston saw the body "in its original position on its back in the cart, with blood in moderate quantities in the nostrils, and on the face, hands, and clothes;" (he had been struck by one of his companions on the way;) "the joints rigid, the arms by the sides, and the knees half bent. Dusky-red patches were observed on the forehead, right side of the face, the chin, the outside of the right and inside of the left thighs, and on the insteps of both feet; with these exceptions, the front of the body, including the lips, markedly pale; dependent parts of the trunk and limbs livid.

"At the subsequent inspection, the following appearances presented themselves: Scalp pale; arachnoid membrane thickened and opaque; clear serum, rather abundantly under the arachnoid, in the cerebral ventricles, and at the base of the skull; excepting some fullness of the superior longitudinal sinus, the cerebral veins and sinuses contained but little blood; the mass of the encephalon unusually pale and bloodless; reddish frothy mucus in the treachea, and in considerable quantity in the bronchi; distinct œdema of the left lung; fluid blood in large quantities in the cavities on both sides of the heart, and in the arteries and veins connected with them; and the blood here as elsewhere, as in the previous case, presenting, except when in mass, a rich crimson arterial hue; the contents of the abdomen unusually pale and bloodless; a quantity of brownish fluid, smelling of beer, in the stomach; bladder enormously distended with clear urine."

Dr. Ogston remarks on the analogies observable between these cases and four others, published by him in the *British and Foreign Medico-Chirurgical Review* for October, 1855; but he very justly says that further observations are required to enable us to assume that like appearances are necessarily to be found in every case of death by cold, even in its least complicated form. The subject is not without interest in a pathological point of view, although it is chiefly important in connection with legal medicine.—*North Am. Review.*

CHICAGO ACADEMY OF MEDICAL SCIENCES.

The Third Annual Meeting of the Academy was held at its rooms, January 4th, 1861.

The following named fellows were elected officers for the ensuing year:

President—James Bloodgood, M. D.

Vice President—Thomas Bevan, M. D.

Recording Secretary—E. L. Holmes, M. D.

Corresponding Secretary—J. McAllister, M. D.

Treasurer—W. S. Denniston, M. D.

Trustee—A. Fisher, M. D.

Committee on Medical Ethics—R. C. Hamill, M. D.; N. S. Davis, M. D.; E. Powell, M. D.

Committee on Medical Education—W. H. Byford, M. D.; J. W. Freer, M. D.; Thomas Bevan, M. D.

Committee on Admissions—S. Wickersham, M. D.; H. W. Jones, M. D.; S. C. Blake, M. D.

ABSTRACT OF THE PROCEEDINGS OF THE AURORA CITY MEDICAL ASSOCIATION.

Aurora, Ill., *January 7th*, 1861.

The Aurora City Medical Association met at Dr. Young's office.

Present—The Vice-President, Dr. L. A. Young, in the chair; Drs. Allaire, Angell, Hard and Young.

Minutes of last meeting read and approved.

It being the annual meeting, on motion of Dr. Young, the

Association proceeded to the election of officers for the ensuing year, after which the following gentlemen were declared duly elected:

President—L. H. Angell, M. D.

Vice-President—Abner Hard, M. D.

Treasurer—P. A. Allaire, M. D.

Secretary—D. W. Young, M. D.

On motion of Dr. Allaire, Dr. Young was appointed a committee of one to prepare and forward to the Hon. Edward R. Allen, our Representative in the Legislature, a copy of the petition presented to and recommended by the Illinois State Medical Society, at its tenth annual meeting, petitioning the Legislature to pass a registration law for the State of Illinois.

On motion of Dr. Young, Dr. Allaire was appointed a special committee to wait upon and inform the Common Council that their ordinance requiring the registration of deaths and all interments occurring within the city limits, was being violated to a certain extent, especially at the Catholic Cemetery, and requesting them to see that the ordinance should be enforced in every case in the future.

On motion of Dr. Young, Dr. Howell, the retiring President, being unable to attend this meeting, was granted further time to deliver his valedictory address.

The President appointed Dr. Allaire to read an address at the next meeting. The President announced Scarlet Fever as the subject for discussion at the next meeting.

On motion of Dr. Hard, the Secretary was instructed to forward an abstract of the proceedings of this meeting to the *Chicago Medical Journal* for publication.

On motion of Dr. Young, the Association adjourned to meet at Dr. Allaire's office, on Monday evening, January 21st, 1861.

D. W. YOUNG, M. D., SECRETARY.

PROCEEDINGS OF THE SEMI-ANNUAL MEETING OF THE ROCK RIVER UNION MEDICAL SOCIETY FOR 1861.

The Society convened at Dixon, Jan. 16th. The President, Dr. A. G. Porter, being absent, the meeting was organized, on motion of Dr. G. W. Phillips, by choosing Dr. Moses M. Roger, of Sterling, as President *pro. tem.*

Proceedings of last meeting read and approved.

Drs. J. F. Marsh, and P. J. Wardner, of Grand de Tour, being proposed as members, were, on motion, admitted members of the Society.

Report of Committee on Surgery being called for, Dr. G. W. Phillips, as a member of the committee, read an essay, entitled: "The line of demarcation, and of separation—the course of its formation—and its practical significance."

On motion of Dr. N. W. Abbott, the Report was accepted and ordered to be placed on file, with the papers of the Society.

Drs. Abbott, Wardner, and W. Wynn, made some observations upon the practical points contained in the essay.

A discussion here sprung up as to the possibility of a limb, as a toe or finger, after having been completely severed from its connection, again being united.

Dr. Wardner mentioned a case, which came under his observation, of the severing of the foot, through the middle, by incised wound, so that a portion, or isthmus of skin, not an half an inch wide, remained; the wound, after being properly dressed, united again firmly, so as to give an useful limb.

Dr. Roger mentioned a case, for which he vouched, but did not see, of the complete severing of a finger, which, being immediately placed back to its place, and firmly retained, united strongly, and gave an useful finger.

Dr. Abbott, from committee on "Best means of preparing

Medicines for convenient administration to young children," made remarks upon the subject. He had found that common salt, taken in the mouth, held, and then swallowed, both before and after taking a dose of quinine, effectually destroyed the taste of the medicine.

On motion, adjourned until after tea.

Evening Session.—On motion, the question of printing the fee-bill was laid over until the annual meeting in June.

On motion of Dr. Phillips, the President appointed three delegates, consisting of Drs. N. W. Abbott and G. W. Phillips, of Dixon, and Dr. A. M. Freas, of Milledgeville, Carroll Co., to attend the American Medical Association, to be held in Chicago next June.

On motion, Drs. H. C. Donaldson, of Como, Moses M. Roger, of Sterling, and Dewitt C. Warney, of Dixon, were chosen delegates to the State Medical Society.

On motion, the committees that have not reported, be continued, and report at the annual meeting.

On motion, Dr. A. W. Benton was admitted a member of the Society.

On motion of Dr. Abbott, the Secretary was instructed to furnish a copy of proceedings for publication in the Chicago *Med. Journal*, and in the *Republican* and *Telegraph*, of Dixon.

On motion of Dr. Phillips, Sterling was selected as the place for holding the annual meeting.

On motion, adjourned.

G. W. PHILLIPS, M. D., SEC'Y.

Unity of the Human Race.—The veteran Dr. Samuel A. Cartwright, contributes to De Bow's *Review* a characteristic article, wherein he argues from the Hebrew Bible that the unity of the human race is theologically disproved. We opine, however, that opinions will still continue to differ on the point.

EDITORIAL.

Delay of the January Number Explained.—We regret that the present No. has been delayed by unforeseen circumstances. The gentleman with whom we had made a verbal contract to print the *Journal* the ensuing year, disappointed us in the very nick of time, and the necessity of making entirely new arrangements caused a more provoking, because wholly unanticipated, delay. The February No. will be issued early in the month, and thereafter our Printers contract to mail each No. promptly at a period not later than the first day of the month designated on the *Journal*.

The Future.—The Editors beg leave to say that for the ensuing year they have perfected arrangements which, it is believed, will add largely to the interest, importance, and moreover the artistic appearance, of the Journal committed to their charge. Original contributions, of both scientific and practical character, have been guaranteed from gentlemen of eminence and real worth in the profession; and the several departments of Selected Reading, Abstracts, Reviews, Bibliographical Notices, Items of Medical News, &c., &c., it is intended shall be a true reflex of medical thought, science, art and advancement.

In this, the *Eighteenth Volume* of the Journal, enjoying as it does pre-eminently, the largest and widest circulation of any medical periodical in the Northwest, the Editors hold it as incumbent upon them to use their best efforts to render it even more worthy than ever of professional support and influence. Disclaiming the character of an *organ*, in the conventional sense of that term, it will still attempt to be an *exponent* of

sound medical opinion, whether in reference to professional literature or education, science or art. It aims to be a welcome guest at the tables of the faculty of the Northwest, as well as to indicate to more remote portions of country the professional *status* of its immediate section. Little space will be granted to subjects of medical foibles or follies, within or without the professional ranks, whilst the Journal will still claim the right to independent discussion of real problems of interest, and an earnest outspoken defence of what it believes to be the right and the true, amid all the variety of topics which can profitably claim professional attention.

To Contributors.—With sincere thanks to the many friends of the Journal who have heretofore added so much to its interest and value by their generous contributions to its pages, we hopefully solicit a continuance of their favors in the future. It is important, in order to secure early insertion, that articles should be sent in before the *fifteenth of the month.*

Brevity, perspicuity and precision, are the necessary elements of a first-rate medical communication. Rhetoric is better adapted to ornament secular than medical magazines, even when in the latter so exciting a subject as *inversio uteri* is to be ventilated.

Rush Med. College.—About 160 gentlemen are in constant attendance upon the present annual session of this institution. Of this number 145 are matriculated and have taken out all the tickets.

Summer Session of Rush Medical College.—The special attention of medical students is invited to the announcement of this course, to be found on the cover. The high character and excellent professional attainments of the gentlemen having this institution in charge, would be sufficient to secure its success, even if previous sessions had not already demonstrated the fact. We lend the enterprise hearty endorsement and support.

Surgical Instruments.—The enterprising and popular house of J. H. Reed & Co., of this city, send out with this No. a full catalogue of their stock of surgical instruments, accompanied with the further convenience of a list of prices. It is worth preserving for future reference.

Per-Sulphate of Iron in Post-Partum Hemorrhage.—Dr. Geo. Mendenhall, of Cincinnati, reports a case of successful treatment of dangerous hemorrhage by intra-uterine injection of three ounces of the saturated solution of per-sulphate of iron in water. All the usual remedies had failed, and the case seemed desperate. The effect was prompt and complete. "*After the injection there was not at any time a particle of fresh blood, or a tinge of it, in the lochia.*"

Adulteration of Alcoholic Spirits.—Dr. A. A. Hayes, State Assayer of Massachusetts, as the result of considerable experimentation, doubts the intentional adulteration of alcoholic spirits by strychnine or other foreign poisons. He considers the spirits produced in this country to serve as beverages, remarkable for their purity and freedom from any substances which careful rectification can remove. The low-priced common spirits are occasionally noxious from the presence of the so-called *fusel oils.* But salts of copper, of lead or tin, are not infrequently present in newly distilled spirits, derived from the condensers in which the vapors are reduced to a fluid form. The quantity, however, is necessarily small, and mainly important in toxicological analyses when death is suspected to have resulted from poisons derived from other sources.

The St. Louis Medical and Surgical Journal for November, contains a severe attack upon Dr. Jos. N. McDowell's Report on Surgery. We regret to see the unpleasant feeling manifested, but believe the parties will respectively survive.

Dr. Linton winds up his series of articles on Homœopathy, having in the most trenchant, unanswerable, and yet genial,

style, annihilated his *quasi* antagonist. By the by,—this is one of the most readable of our exchanges.

Gonorrhœa.—Some one lately revives the medicated bougie in the treatment of obstinate cases of gonorhœa—the wax bougie encrusted with pulv. alum, being recommended. It is to be retained in the urethra several hours at a time. This is well enough, perhaps; but the real secret of the successful treatment of this disease is merely this: to secure the application of the medicament to the diseased surface, a thing rarely done, and hence the frequent failures. The poisonous matter finds lodgment in the crypts, the lacunæ, of the urethral parietes, and in old cases not infrequently these become largely distended. Obliterate these, by patient distension of the pasage, so that the antidotal medicine may be applied directly to the diseased part, and the difficulty is ended. The methods are obvious, and success about infallible.

Seventeenth Semi-Annual Report of the Board of Water Commissioners, 1860.—The city of Chicago boasts the purest water, plentifully distributed, of any city of its size. The wonderfully augmented salubrity of the city for several years past, is unquestionably in great part due to the purity of the water with which it is supplied, and the improved system of sewerage which has been inaugurated and carried forward with commendable dispatch. Let the good work go on.

At a recent meeting of the Medico-Chirurgical Society, of New York city, Dr. A. B. Mott stated that he had employed Prof. Brainard's method of subcutaneous division of the bones and soft parts in ununited fracture several times with success. —*Med. and Surg. Jour.*, *Nov.* 24, 1860

Nicotian.—It is estimated that the world smokes, snuffs and chews 2,000,000 tons of tobacco annually.

Palliative Treatment of Cancers.—Mr. Thos. Hunt, (Southern M. and S. Journal), thinks much can be done in the palliative, and perhaps curative, treatment of "those cases of true scirrhusin the breast in which there is a hard and movable tumor, not yet advanced to the stage of ulceration." He recommends the belladonna plaster to allay pain; cotton wadding to protect from changes of temperature; suspension of the whole breast especially if pendulous; generous diet, tonics, particularly chaly beates and arsenic; moderate but frequent exercise in the open air, &c., &c. The course recommended seems eminently judicious.

Climate of California in Phthisis.—Dr. James Blake, of Sacramento, eulogizes the climate of California for Consumptives, in a series of well written articles in the Pacific M. and S. Journal. At the present time the attention of practitioners seems to be directed about equally to California and Lake Superior as resorts for invalids of this character. So much depends upon the peculiarities of each particular case, that it would seem difficult or impossible to lay down any positive rule for general adoption.

Proceedings of the American Institute of Homeopathy, Philadelphia, 1860, *pp.* 206.—From careful reading of this pamphlet, the idea, which had previously gained possession of our minds, that the disciples of Hahnemann were gradually dropping the more ludicrous and narrow features of their creed, becomes further confirmed. In general practice, it is notorious, that the gentlemen who label themselves Homeopathists, do not scruple to avail themselves of the appreciable doses, and most of the later books and pamphlets emanating from that school, are deeply tinged with the same heresy against their Grandfather's dogmas. The *let-alone* treatment will result in speedy convalescence to the victims of the infinitesimal epidemic.

Quien Sabe?—Grease an Antidote for Arsenic.—Blondlot shows by experiment that grease reduces the solubility of arsenious acid to one-fifteenth or twentieth its previous degree. "Morgagnie tells us, in his writings, that in his time, the Italian boatmen used to astonish the bystanders by swallowing, without hurt, large pinches of arsenious acid, having taken the precaution beforehand, of drinking a quantity of milk, or eating some greasy matter. As soon as the public retired, they got rid of the poison by vomiting." This would seem to indicate the use of cream, lard, &c., as antidotal to this poison. The remedy proposed, at all events, has the advantage of being innocuous.

Ligature of the Arteria Innominata.—Dr. E. S. Cooper, of San Francisco, reports a recent case of ligation of the *arteria innominata.* Thirty days from the operation the case was progressing favorably, although from the final results of recorded cases of the kind, he was still watching for the sequel with considerable anxiety. One thing is quite evident, from the remarkably favorable results chronicled by our brethren of the Pacific coast, and that is, that the climate of their section is peculiarly salutiferous to surgical patients.

Monsel's Salt.—Our inquiring friend is informed that by this term is meant the per-sulphate of iron, a remedy recently grown very popular as a styptic, and also as a local application to venereal and other ulcers.

We find the following formula from the Am. Jour. Pharmacy a good one: By George S. Dickey, Jr., of San Francisco, Cal.—I give you my formula, the result of numerous experiments when I first undertook its manufacture:

℞.	Aquæ destillatæ,	℥ lxxx.
	Acid Sulph. Com.	f. ℥ ix, Xf ℥ iii.
	Ferri Sulph. Puræ,	℥ c. troy.
	Acid, Nitric, "	f. ℥ viii. or q. s.

Mix the water and sulph. acid, and dissolve in the mixture

one-half of the sulphate of iron with the aid of heat. Bring up the mixture to a brisk boil, and add the nitric acid little at a time until effervescence ceases, and while still boiling add the remainder of the sulphate of iron little by little, and boil until effervescence ceases. Filter the solution, evaporate to a syrupy consistence and spread on plates of glass to dry. It requires considerable heat to dry perfectly, but is quickly dehydrated by a too long continued heat. When dry, it is necessary to detach it from the plates with a chisel.

The article has attained great celebrity here, principally as a hæmostatic and as a local application to venereal ulcers.

I have manufactured and sold more than two thousand (2,000) ounces during the last year and a half, and its sale still continues, in fact, increases.

I have never yet met an instance of its failure to stop bleeding when properly applied, and it is only necessary that the dry salt should be sprinkled on the wound.

I have been much surprised that it has been so long getting into use in your section, as I sent two or three samples to different parties near a year since.

Very truly yours, GEO. S. DICKEY, JR.*

THE AMERICAN MEDICAL ASSOCIATION.

The *Louisville Medical News*, in its penultimate number, is exercised with reference to Chicago and the ensuing meeting of the American Medical Association. We appreciate its depth and tenderness of emotion. We know that when that august body was about to convene at Louisville there were local wars and rumors of wars, log-rolling and feastings, and cliqueing in abundance. We do not wonder that the Louisville editor thinks the same is the case in Chicago. Some people are very apt to reason from particulars to generals, on a very small allowance of particulars. We beg leave, however, to assure our chivalrous *confrere* that, as yet, we have not heard the subject alluded to in this city, publicly or pri-

*The specimens of the salt received from Mr. Dickey were the finest we have seen; perfectly dry, in very thin scales, translucent and of a light reddish brown color, very soluble and astringent.—ED. AM. J. PH.

vately. The only medical gentleman who seemed to manifest any interest in the matter, has in a contemporaneous print disavowed any ambition in the premises, and from sundry circumstances we are inclined to credit his disavowal.

The profession in Chicago we believe will sustain the reputation of the city for hospitality and good cheer, next June as heretofore.

The political squabbles and eccentric movements which a few demagogues are howling about, just at this period, we do not believe will materially influence the annual assemblage of AMERICAN physicians. Medicine is cosmopolitan, and is not likely to prostitute itself before sectional ululation, whether Northern or Southern. Time was when a venerable fragment of Philadelphia excreta, could rail at western medical men, and assert that wise men came only from the east, but just now the professional sense has opened itself to the idea that true medical science knows no South, North, East or West, but limits itself only to the round world and its circumambient atmosphere. This is true—Chicago says to the American profession—we have no friends to reward or enemies to punish. If you have any honor to confer, *Detur digniori*, irrespective of geography or chicane.

BIBLIOGRAPHICAL NOTICES.

A MANUAL OF AUSCULTATION AND PERCUSSION: Translated from the French of MM. Barth & Roger, by J. A. Pottenger, M. D., St. Louis. 12 mo. pp. 161. From the Translator.

This is a translation of the *Resume* of the larger work of MM. Barth & Roger, as prepared by themselves for the convenience of students. The merits of the work are too well known to need recapitulation. The Translator has performed his task with scrupulous fidelity, and we take pleasure in commending the "Manual" to all who wish for a concise, perspicuous and practical exposition of the subject.

A Handbook of Hospital Practice, or An Introduction to the Practical Study of Medicine at the Bedside. By Robert D. Lyons, Physician to Jervis St. Hospital, Dublin, &c., &c. Reprint by S. S. & W. Wood, 389 Broadway, N. Y. From the Publishers, 1861.

It does not follow that because a work is brief, that therefore it is superficial. This is a fallacy, which we are happy to say, is gradually disappearing from the minds of bookmakers. The work before us is a capital illustration of the *multum in parvo*. It is a practical companion for Dr. Hartshorne's Syllabus, noticed some little time since.

Adopting Dr. William Farre's classification of diseases, now very generally employed for Registration statistics, the Author proceeds to instruct the student how to examine patients, what to observe, the diagnostic signs, the particular methods applicable to local disorders, post mortem examinations, &c., &c. The task has been accomplished in a manner worthy of high praise. The work contains also an Appendix, including directions for writing prescriptions, a glossary and specimen blanks for recording cases. The student who will thoroughly master the contents of this little book, will be richly rewarded in after years. Nor need even experienced practitioners fear any loss of time by careful reading of its pages. They will find their ideas acquiring definiteness by its perusal, and, practically, cannot fail to derive many valuable suggestions.

Contributions to the Anatomy of the Spinal Cord.—By Dr. J. B. Trask, San Francisco, 1860. From the Author.

Extracts from this interesting *brochure* will appear as space permits in subsequent numbers. The author has our sincere thanks.

The True Physician.—Dr. John Watson's Anniversary Discourse before the New York Academy of Medicine, Nov. 7, 1860. Published by order of the Academy.

A racy readable production, profusely illustrated with

anecdote, and characterized throughout by a high professional tone, worthy of the author and the occasion. We make room for brief extracts:

As in literature and the fine arts, so also in medicine, every enlightened nation has its own peculiarities. Local organizations differ, conventional habits and opinions vary, with varying forms of government. The style of education, and the social rank of medical men, are not the same in all countries. Their modes of promotion to posts of honor, the number and nature of these, are not everywhere alike. The tendency to practical inquiry or abstract speculation, the character and freedom of their discussions, even their artistic skill in writing for the press, partake more or less of the national spirit. Every point in these and other national characteristics has its influence upon the judgment. Peculiarities thus engendered are not always recognized by those moving only in the atmosphere of their own nationality and who never breathe the air of other places; but to the stranger, or returning traveler, they are perceptible enough.

"Be sure you're right at first, then go ahead," is an apothegm bequeathed to us by a man worthy of remembrance, as much for his practical common sense as for his deeds of daring among our western pioneers. The latter part of this injunction is now an accepted Americanism, as common to the habits as to the language of our people; but the clause with which it is coupled is too apt to be forgotten. It is hardly of domestic origin. It points to habitual forethought; to times anterior to the rapid march of modern innovation, and not to those whose custom is to act first, and think afterwards.

The well-known words of Jefferson, "free and equal," have been the theme of many commentators, for approval on the one hand or ridicule on the other. There may have been a time when their influence was trifling; but such is not the case at present. They have long since ceased to apply here simply to political freedom and equality. They are now the enunciation of a sentiment common to our people of every rank and station. This, as it affects our own profession, is most conspicuous in our neophytes, and humbler aspirants after notoriety; but it is also occasionally seen in other quarters.

Cullen, we are told, was on one occasion reprimanded for publishing, and was obliged to retract, certain statements in his work on the Materia Medica which had not the sanction

of the Faculty at Edinburgh. The time has never come—it probably never will come—for any medical writer here to desist, at the dictation of any school or association, from giving to the world opinions the most crude, or statements the most unworthy of reliance. This, perhaps, is right. The conflict of errors is their best cure. But the privilege of doing wrong does not imply the expediency of wrong-doing.

* * * * * * *

When the University of Upsal, at the instigation of Professor Rosen, silenced Linnæus and prohibited him from lecturing on botany, simply for the reason that he was yet an undergraduate, the indignant naturalist drew his sword upon his enemy. For, though young, he was already conscious of his own abilities, and felt that he had been injured by a man inferior to himself. In America, the man of talent has nothing to apprehend from such indignities. But every aspirant to the professorial chair is not a Linnæus, even in America; and it is no strange thing for our professors to become familiar with the department of education assigned to them only after receiving official sanction to take charge of it.

In connection with this disposition to rest satisfied with superficial attainments, and in some measure the result of it, is a tendency on the part of many of our people to frequent change of occupation; and of others to undertake more than they can accomplish. Here every country village can supply its man.

> "Who, in the course of one revolving moon,
> Is statesman, chemist, fiddler, and buffoon."

I might pursue this topic. But with these serious drawbacks it is proper to remark that we are not without our advantages; that in connection with the profession at home we can point to honored names and deserving institutions; that if our schools are not all equal to the best-appointed schools in Europe, the fault is not so much in their style of education as in the low requirements for their degrees; and that such of our youth as are desirous of thorough professional training can find at home the amplest opportunities.

In no other nation are books and periodicals, medical as well as others, so cheap and accessible as among ourselves. In no other is the habit of reading so general. In no other are the rewards of honorable enterprise so open to men of moderate means; and in no other is the energy of the individual so frequently or so variously displayed, or certainly

rewarded. Hence it is, that if the profession, as a body, here, have not yet secured the front rank in aggressive science, many among them have thus distinguished themselves, and others are in rapid progress towards these. Hence, too, it is, that though our medical luminaries may not be so numerous as in the Old World, the great mass of men here engaged in the active duties of the profession are better read, and better posted on every question of importance to ourselves than the body of professional men of any other nation. And this remark applies to the practitioner in the rural districts and retired hamlets of the United States as well as to those of our larger cities.

Again, without reference to our medical literature, of which, on the whole, we have no reason to be ashamed; or to the numerous and valuable accessions which have been made to practical medicine and surgery, we have our voluntary associations for mutual improvement, and for the collection and publication of important facts and discoveries; our county and State organizations for supervising the general interests of the profession; and, above all, our National Medical Association, which, in its annual migrations, is uniting us all into one body, awakening public spirit, and inciting to concerted and energetic action the members of the profession in every section of our country. Let us hope for its continued influence and growing usefulness.

Again, the meritorious are not the first to complain of ill success. Speaking of himself, the moralist Johnson tells us that he never knew a man of merit neglected, and that all the accusations against the world for the failure of the deserving are unjust. This may not be universally applicable. But, as observed by one of his recent reviewers, it is certain that those who whine the most deserve the least. The man that cries out, "I am neglected," usually merits the neglect he meets. "I hate a complainer," was another aphorism of this distinguished moralist. Men of Johnson's stamp are, indeed, "superior to fortune, and, as he has said of Shakspeare in his low estate, shake off its incumbrances like dew-drops from the lion's mane."*

Daniel Webster, when asked by a young friend if the legal profession were not already overcrowded, is said to have replied to him, "There is plenty of room up stairs." The intimation is applicable also to our own calling. Of the crowds

* London Quarterly Review, January, 1859.

that are yearly ushered into its portals, only the smallest number ultimately reach its highest honors; but for such as are qualified for these there is yet room.

Finally, the meritorious shun that notoriety which comes from eccentricity of manner, or peculiarity of equipage or costume,—holding obliquity of conduct to be associated with obliquity of judgment. The man of affected, no less than of unaffected eccentricities, is rarely a safe adviser, however brilliant he may be on particular occasions. And the man of sinister motives who assumes these, and whose heart is taken up with his own aggrandisement, is unworthy of acknowledgement as a physician; who, like Hamey, should be "a scholar, without pedantry; a philosopher, without taint of infidelity; learned, without vanity; grave, without moroseness; solemn, without preciseness; pleasant, without levity; regular, without formality; nice, without effeminacy; generous, without prodigality; and religious, without hypocrisy." In a word, his ruling principles, his hopes and aspirations, should be elevated, and of such a nature as to call forth his talents to their full effect. Thus moving, his course is safest as well as best. For at every step he is reaping new installments of his reward, and gathering, as he advances in life, the honors for which he was led to look, and which stimulated him to exertion in his earlier years.

A Practical Treatise on the Ætiology, Pathology, and Treatment of Congenital Malformations of the Rectum and Anus. By William Bodenhamer, M. D. Illustrated by sixteen plates. New York. Samuel S., and William Wood, p. 360.

The author of this work seems to us to have filled a void in surgical literature, since no treatise on the same subject exists in English or any other language. He appears to have exhausted the subject as far as can be judged, without referring to the original sources from which the materials are drawn, and as regards the history, nature, and treatment of these malformations, to have left nothing to be desired.

While so many ponderous and ill-adjusted treatises superficial upon everything and complete in nothing, are being issued, it is a pleasure to welcome the book to which the

practitioner may, in case of need, refer with the certainty of being able to find the information sought for. No Surgeon should be without it.

DISEASES PECULIAR TO WOMEN, including Displacements of the Uterus. By Hugh L. Hodge, M. D., Professor of Obstetrics and Diseases of Women and Children in the University of Pennsylvania. *Nullisues addictus jurare in verba magistri.* With original illustrations, pp. 442, Philadelphia: Blanchard & Lea, 1860.

We have only time to announce the publication of this very valuable and interesting work. The reputation of the venerable author, and the importance of the subject will at once commend it to the profession. A professional friend, of distinction in this department, has promised a review for our pages next month. The volume can be found at S. C. Griggs, Lake street.

REPORTS ON THE ILLINOIS PENITENTIARY. By the Commissioners for the years 1859–60, pp. 92.

This pamphlet contains much of interest to medical men, and is worthy of attentive perusal. So far as appears from the reports, the State penal institutions are in good order and condition. The mortuary list is remarkably small, which evidences a suitable attention to the hygienic department.

Hez. Williams, M. D., Physician at Alton, reports:

"Sixteen hundred and forty-nine patients have been received at the hospital [in eighteen months], and their symptoms of disease, and surgical and medical treatment placed upon its records. Of this number, twelve have died. This small proportion of mortality, and the general good health of the prisoners, is justly attributable to the careful attention bestowed by the officers of the prison on the preservation of scrupulous cleanliness in all departments, to an abundant supply of wholesome food, and to the maintenance of good discipline; facts of which my opportunities of daily observation in the discharge of my duties as surgeon to the hospital, have made me cognizant."

The report of John R. Casey, M. D., the physician at Joliet, is equally favorable. There were during the year 1859, but nine deaths. During eleven months of 1860, but nine deaths, and of this number, three died of phthisis contracted before entering the Penitentiary.

Whole number of deaths in both branches—*thirty* in two years.

To Business Men.—Your attention is requested to this Journal as an advantageous advertising medium. Enjoying as it does, the largest circulation of any professional journal in the North-West, and with constant additions to its subscription list—going into almost every town and city of any importance in this section of the country—a notice in its advertising columns will be sure of vastly greater publicity than usually befalls advertisements in most periodicals. Terms as moderate as could reasonably be desired.

Half page, one insertion,	$5 00	Six months,	$20 00	One year,	$30 00
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COMMUNICATIONS.—All communications for insertion in the Journal, or on business matters connected therewith, may hereafter be directed to the Junior Editor,

DR. J. ADAMS ALLEN,
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RUSH MEDICAL COLLEGE.

NINETEENTH ANNUAL SESSION—1861-62.

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Professor of Anatomy.

EDWIN POWELL, M. D., DEMONSTRATOR.

The annual announcement will be issued soon.

☞ **For information with regard to the institution, address the Secretary,** R. L. REA, M. D.
Chicago, Ill.